Tasmanian Year Book



1986

This page was added on 11 January 2013 to include the Disclaimer below.

No other amendments were made to this product.

DISCLAIMER

Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

TASMANIAN YEAR BOOK
1986

LIBRARY
Department of Social Security
Hobart

Frontispiece: Lake Windemere
(Doug Palmer)



AUSTRALIAN BUREAU OF STATISTICS
TASMANIAN OFFICE



TASMANIAN

YEAR BOOK

No. 20: 1986

319.46
AUS(STA)

LIBRARY
Department of Social Security
Hobart

G.D. COCKING
DEPTUY COMMONWEALTH STATISTICIAN
AND GOVERNMENT STATISTICIAN OF TASMANIA

A.B.S. Catalogue Number 1301.6

National Library of Australia card number and ISSN 0082-2116

By Authority:
Wholly set up in Australia by
CREATIVE TYPOGRAPHICS PTY LTD, Hobart, Tasmania
Proudly Printed in Australia by Ruskin Press, North Melbourne, Victoria

CONTENTS

Chapter			Page
	General information		vi
	Preface		vii
	Acknowledgements		viii
1	**CHRONOLOGY**		
	1.1	The First People in Tasmania	1
	1.2	European Discovery	2
	1.3	Settlement	3
	1.4	Chronology: 1805–1817	3
	1.5	Bushrangers	4
	1.6	Chronology: 1820–1967	4
	1.7	The 1967 Bushfires	9
	1.8	Chronology: 1968–83	9
	1.9	Chronology: 1984	13
	1.10	Chronology: 1985	16
2	**PHYSICAL ENVIRONMENT**		
	2.1	Location and Area	29
	2.2	Climate	30
	2.3	Physiography	35
	2.4	Soils	36
	2.5	Vegetation	37
	2.6	Environmental Management and Control	42
		Appendix	46
3	**GOVERNMENT AND ADMINISTRACTION**		
	3.1	Australia's Federal System	51
	3.2	Commonwealth Government	51
	3.3	Tasmanian Government	56
	3.4	Acts of State Parliament	65
	3.5	State Emblems	70
	3.6	Local Government	70
4	**LAW AND ORDER**		
	4.1	Police	82
	4.2	Courts	87
	4.3	Sentences	91
5	**PUBLIC FINANCE**		
	5.1	Commonwealth–State Financial Relations	95
	5.2	Commonwealth Payments to or for Tasmania	99
	5.3	State Financial Transactions	100
	5.4	State Government and State Authority Taxation	104
	5.5	Local Government Finance	104
	5.6	State and Local Government Finance	106
		Appendix	107
6	**POPULATION**		
	6.1	Tasmania's Population	109
	6.2	Fertility	117
	6.3	Life Expectancy and Mortality	118
	6.4	Population Projections	119
	6.5	Tasmania's Migrant Population A 1981 Census Profile	120

CONTENTS—*continued*

Chapter			Page
7	**LABOUR AND THE WORKPLACE**		
	7.1	The Labour Force	123
	7.2	Employment and Training Schemes	128
	7.3	The Working Environment	132
		Appendix	137
8	**SPORT, RECREATION, TOURISM AND RELIGION**		
	8.1	Sport	139
	8.2	Recreation in Tasmania	142
	8.3	Tourism	144
	8.4	Religion	149
		Appendix	153
9	**EDUCATION**		
	9.1	Preschool Education	156
	9.2	Primary Education	156
	9.3	Secondary Education	157
	9.4	Tertiary Education	160
	9.5	Education Funding	164
	9.6	Libraries	165
	9.7	Museums	166
10	**HEALTH**		
	10.1	Morbidity	169
	10.2	Mortality	170
	10.3	Caring for the Sick	173
	10.4	Health Maintenance	176
	10.5	Mental Health	180
11	**SOCIAL WELFARE**		
	11.1	Income Maintenance	184
	11.2	Direct Services	189
	11.3	Voluntary Agencies	196
12	**ENERGY**		
	12.1	Primary Energy Consumption	199
	12.2	Petroleum	200
	12.3	Electricity	201
	12.4	Coal	205
	12.5	Wood	205
	12.6	Energy Research	205
	12.7	Energy Management	208
13	**WATER RESOURCES**		
	13.1	Water Resources and Usage Options	209
	13.2	Water Resources Management	210
	13.3	Water Treatment	216
14	**TRANSPORT AND COMMUNICATION**		
	14.1	Transport	219
	14.2	Telecommunications	224
	14.3	Postal Services	227
	14.4	Newspapers	227
	14.5	Radio and Television Services	228
15	**AGRICULTURE**		
	15.1	Land Use	233
	15.2	Livestock	234
	15.3	Livestock Products	236
	15.4	Principal Crops	238
	15.5	Services to Agriculture	240

CONTENTS—*continued*

Chapter		Page
16	**MINING**	
	16.1 Geology of Tasmania	245
	16.2 Exploration	246
	16.3 Mineral Production	249
	16.4 Mineral Processing Industries	250
	16.5 Mining 1985	250
17	**FORESTRY**	
	17.1 Forests, Timbers and Plantations	253
	17.2 Ownership and Control	255
	17.3 Forest Utilisation	256
	17.4 Timber Using Industries	258
	17.5 Forest Management and Research	259
18	**MANUFACTURING**	
	18.1 Industries	261
	18.2 Economic Contribution	266
19	**HOUSING AND CONSTRUCTION**	
	19.1 Housing	269
	19.2 Construction	277
20	**TRADE**	
	20.1 History	283
	20.2 Tasmania's Trading Partners	284
	20.3 Value of Overseas Trade	285
	20.4 Commodities Traded	286
	20.5 Tasmanian Ports	287
	20.6 Retail Trade	290
	20.7 Prices and Price Changes	293
	TASMANIAN STATISTICAL DIVISIONS	295
	STATISTICAL SUMMARY	301
	PUBLICATION OF TASMANIAN STATISTICS	331
	INDEX OF SPECIAL ARTICLES	335
	GENERAL INDEX	339

GENERAL INFORMATION

SYMBOLS

The following symbols, where used, mean:

ASIC	Australian Standard Industrial Classification
n.a.	not available
n.e.c.	not elsewhere classified
n.e.i.	not elsewhere included
n.p.	not available for separate publication but included in totals where applicable
n.y.a.	not yet available
p	preliminary — figure or series subject to revision
r	figure or series revised since previous issue
..	not applicable
—	nil or rounded to zero
——	break in continuity of the series (where drawn across a column between two consecutive figures)
(H)	located in Hobart Statistical Division
(S)	located in Southern Statistical Division
(H) (S)	parts in both Divisions.

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

Where reference is made to Acts of the Commonwealth or State Parliaments, the year quoted refers to the year in which the principal Act was passed; all subsequent amendments are inferred.

VALUES AND MESURES

Values are shown in Australian dollars ($) and/or cents (¢). Metric units have been substituted for imperial units. The use of dollar currency and metric units has not been confined merely to tables; for the sake of uniformity, they have also been introduced into historical texts.

LOCAL NAMES OF CERTAIN REGIONS

Tasmanians describe certain regions in a manner confusing to strangers; nevertheless this book employs local usage in most contexts. The chief peculiarities are:
North-West Coast: The *north* coast from approximately Port Sorell, west to Cape Grim is called the *North-West Coast.*
North-East Coast: The *north* coast from approximately Low Head, east to Cape Portland is called the *North-East Coast.* With most of the north coast referred to as either 'north-west' or 'north-east' the term 'north' is rarely applied to this coastal region.
West Coast: The Tasmanian *West Coast* may also refer only to the mining settlements of Queenstown, Rosebery, etc. In other contexts, the user may be thinking of inland mountains and rainforests rather than of a coastline.
Midlands: The true *Midlands* are probably the Central Plateau but the Tasmanian term means the rural area east of the Plateau and lying along the axis of the Hobart–Launceston road (the *Midland* Highway).

PREFACE

In this 1986 edition, the Tasmanian Year Book has undergone substantial change, not only in its visual presentation but in its content as well. The changes have been made to broaden the Year Book's appeal. It places most emphasis on recent events — particularly the 1984–85 period. Although some historical background is provided, the aim of its authors has been to broadly cover current social and economic life in Tasmania. The statistical tables are not as comprehensive as they have been in previous editions; readers wanting detailed information will therefore need to consult particular statistical bulletins published by the Bureau of Statistics. References to these bulletins are provided at the end of each cahpter. In most cases these sources will also provide more up to date information. The text and tables in the Year Book are supplemented by numerous maps, graphs and diagrams.

Owing to the magnitude of the task involved in fully revising the Year Book, some topics have not been included in this edition. This includes for example, fisheries, private finance, and the arts. It is intended that these and other areas will be covered in future editions. The authors are also aware that further improvements can be made to the topics already covered, and in that sense this issue is regarded as a prototype for other enhancements in future editions. Comments will therefore be very welcome, including suggestions on topics that it is important to cover in the future. Offers to draft articles on particular topics will be especially welcome.

I gratefully thank the many people both outside and inside the Bureau of Statistics who have directly contributed to the Tasmanian Year Book 1986. The major contributors are individually mentioned in the acknowledgements section. The Year Book has been prepared under the direction of Mr R.S. White, J.P., B.A., M.A.C.S., Mr Chris Johnston B.A., and Mr David Moser, BSc. I must especially commend the personal commitment and creative efforts of Mr Brian Austen M.A. who was responsible for compiling and editing this new and improved edition. I also gratefully acknowledge the assistance of all those individuals, businesses, Commonwealth, State and local government authorities, other organisations, farmers and graziers who supply to the Bureau of Statistics the basic data from which the statistics in the Year Book have been compiled. The ABS appreciates and relies on the assistance of these people and organisations in all its work.

The Tasmanian Office of the Australian Bureau of Statistics provides an Information Service which, on request, supplies available statistical information and publications. All publications of the ABS and other statistical material are included in the office library which is open to the public for reference purposes. Businessmen, manufacturers, primary producers, government authorities, students and the public generally are invited to make full use of these services. Anyone requiring advice on which statistics are available or which publications may be of most use to them, or indeed on how to interpret the statistics, is invited to telephone the Information Officer on Hobart 209 409.

G.D. COCKING
Deputy Commonwealth Statistician
and *Government Statistician of Tasmania*

Australian Bureau of Statistics
HOBART, July 1986

ACKNOWLEDGEMENTS

The Australian Bureau of Statistics is grateful to persons, departments, companies and organisations listed below for their co-operation in contributing to this edition of the Year Book. At the Bureau's invitation they provided material and advice and substantially helped make this edition possible.

CHAPTER 1: HISTORY AND CHRONOLOGY

Julia Clark

CHAPTER 2: PHYSICAL ENVIRONMENT

Bureau of Meteorology
K.D. Nicolls and G.M. Dimmock
Lands Department
Department of the Environment
National Parks and Wildlife Service
E. Gall
E. Holloway
Dr. Winifred Curtis

CHAPTER 3: GOVERNMENT AND ADMINISTRATION

Commonwealth Public Service Board
Clerk of the Legislative Council
Department of the Premier and Cabinet
Department of Public Administration
Electoral Department
Australian Information Service
Government House
T. O'Byrne
Municipal Association of Tasmania
Devonport City Council

CHAPTER 4: LAW AND ORDER

Tasmania Police
Law Department
Prisons Service
Probation and Parole Service
Family Court of Australia

CHAPTER 6: POPULATION

Department of Imigration and Ethnic Affairs

CHAPTER 7: LABOUR AND THE WORKPLACE

Department of Employment and Industrial Relations
Tasmanian Industrial Commission
Tasmanian Trades and Labour Council

CHAPTER 8: SPORT, RECREATION, TOURISM AND RELIGION

G. Fry
M. Gill
Department of Sport and Recreation
E. Gall
L. Tuffin

CHAPTER 9: EDUCATION

University of Tasmania
Tasmanian State Institute of Technology
Australian Maritime College
Tasmanian Museum and Art Gallery
M. Eagle

ACKNOWLEDGEMENTS—*continued*

CHAPTER 10: HEALTH

Department of Health Services
Mental Health Services Commission
St John's Hospital
Dr N.M. Newman

CHAPTER 11: SOCIAL WELFARE

Department of Social Security
Department of Community Services
Department for Community Welfare
Tasmanian Council of Social Services

CHAPTER 12: ENERGY

Hydro-Electric Commission
Department of Resources and Energy
The Mercury

CHAPTER 13: WATER RESOURCES

Dr Bruce Davis
Rivers and Water Supply Commission
Hobart Regional Water Board
Launceston City Council
Mr Roy Davies and the Hobart Walking Club

CHAPTER 14: TRANSPORT AND COMMUNICATION

Metropolitan Transport Trust
Department of Main Roads
Department of Aviation
Australian National Railways Commission
Telecom Australia
David Waters
Australian Broadcasting Tribunal

CHAPTER 15: AGRICULTURE

Department of Agriculture

CHAPTER 16: MINING

Department of Mines

CHAPTER 17: FORESTRY

Forestry Commission

CHAPTER 18: MANUFACTURING

Stanley Tools Pty. Ltd.

CHAPTER 19: HOUSING AND CONSTRUCTION

Department of Employment and Industrial Relations
Master Builders Association
Department of Housing

CHAPTER 20: TRADE

Port of Launceston Authority

Chapter 1

HISTORY AND CHRONOLOGY

		Page No.
1.1	**The First People in Tasmania**	1
1.1.1	Physical Isolation	1
1.1.2	Cultural Isolation	2
1.1.3	The Earliest Sites	2
1.2	**European Discovery**	2
1.2.1	Dutch Exploration, 1606–1642	2
1.2.2	Chronology: 1642–1802	3
1.3	**Settlement**	3
1.3.1	Risdon Cove	3
1.3.2	The Settlement at Hobart	3
1.3.3	Settlement on the Tamar	3
1.4	**Chronology: 1805–1817**	3
1.5	**Bushrangers**	4
1.6	**Chronology: 1820–1967**	4
1.7	**The 1967 Bushfires**	9
1.8	**Chronology: 1968–1983**	9
1.8.1	The Tasman Bridge Disaster	10
1.9	**Chronology: 1984**	13
1.10	**Chronology: 1985**	16
1.11	**References**	28

Chapter 1

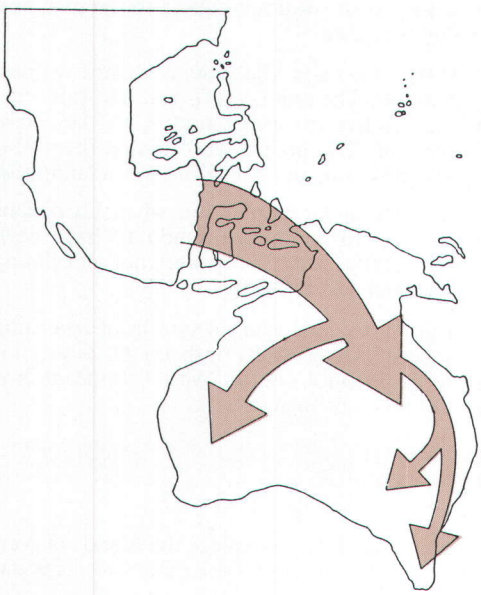
HISTORY AND CHRONOLOGY

The following information on the first humans to live in Tasmania, the Tasmanian Aborigines, is reprinted from a Tasmanian Museum and Art Gallery publication, titled 'The Aboriginal People of Tasmania', by Julia Clark.

1.1 THE FIRST PEOPLE IN TASMANIA

Aboriginal people have been in Australia for at least 50 000 years. They probably came from Java and perhaps China, crossing the sea to the Australian continent on some kind of watercraft. They then spread to the most fertile areas, arriving in Victoria at least 30 000 years ago.

The Tasmanian Aborigines arrived in Tasmania more than 20 000 years ago. They are the descendants of the first colonists of the Australian continent. By 12 000 years ago, they had become isolated from the rest of Australia by the rising sea flooding the Bass Plain. The creation of Bass Strait brought about the cultural and physical isolation of the Tasmanian Aborigines.



Aboriginal migration into Australia 40 000 years ago.

1.1.1 Physical isolation

The Tasmanian Aborigines are the only people we know who remained totally isolated from other human populations for 12 000 years. As a result of this isolation, they developed certain physical characteristics which have been used to distinguish them from mainland Aborigines. These are:

- small to medium height;
- woolly hair; and
- certain features related to the size and shape of the skull, eye sockets, nasal opening and palate.

However, all these characteristics are also found in mainland Aboriginal people. We also know now that mainland people do not all look the same. People from the Central Desert are tall and slim. People from Victoria were shorter and very muscular. Different forms of the same general group are called 'regional variations' and are also found in European populations. Tall, thin, blonde Scandinavians are very different from short, stocky, dark Mediterranean people.

Regional variation accounts for the differences between Tasmanian and mainland Aboriginal populations.

From the greater number of similarities however, it is clear that both groups are very closely related and had the same ancestors.

1.1.2 Cultural isolation

Tasmanian Aboriginal culture is different in some ways from mainland Aboriginal culture. Certain things and ideas, which must have been introduced or invented after the Bass Plain became Bass Strait, did not reach Tasmania.

- The dingo arrived in Australia within the last 5 000 years, and never reached Tasmania.
- After about 5 000 years ago, new stone tools entered the toolkit of all mainland groups. These were very small and finely made. These were not used in Tasmania.
- The technique of hafting stone tools i.e. fitting axes, blades or scrapers with handles, although common on the mainland, was not used in Tasmania.
- Boomerangs and spear throwers must have been invented after Tasmania was cut off, as they were not used in Tasmania. The oldest boomerangs known are 10 000 years old.

Tasmanian Aboriginals did not suffer as a result of not having these things. They had all they needed to live well and happily.

1.1.3 The earliest sites

Archaeologists have found that people lived in Tasmania over 20 000 years ago. They may have been here even longer.

Past events leave remains such as bones and charcoal in layers. The deepest ones are the oldest, and the ones at the top are the most recent. These remains can tell us what people were doing in the past. Radiocarbon dating can tell us when they did these things. In this way archaeologists can build up a picture of the way of life of the Aboriginal people who used the site.

Cave Bay on Hunter Island was an inland hunting camp 23 000–21 000 years ago. It was abandoned during glaciation 14 000 years ago. Later when the sea reached its present level 6 000 years ago, it was re-occupied by people living off the resources of the sea. Then it was abandoned again 4 000 years ago. In its last phase, beginning 2 500 years ago, it was again used as part of the coastal economy of Aboriginal people in the north-west. In the 1800s Aboriginal people still visited Hunter Island in summer for wallaby hunting, shellfish gathering and muttonbirding.

Beginners Luck Cave in south-central Tasmania was used by Aboriginal people more than 20 000 years ago.

Just before the beginning of the last period of intense glaciation in Tasmania, Aboriginal people were occasional visitors to the Florentine Valley; they came to hunt kangaroos and other animals on the open grasslands which were then present. They camped in the cave and left thick, crude flake tools and the charred remains of their meals.

20 000–15 000 years ago the Ice Age was at its most severe. The people who lived at Kuti Kina then were the world's most southerly population. They hunted wallaby in the open tundra around the cave. Their tools, called 'scrapers', were similar to those used on the mainland at the same time. These kinds of tools were used in Tasmania until the 19th Century.

Darwin glass, which is especially good for making stone tools, and ochre were brought into the area from many kilometres away. So we know that many of the aspects of traditional Tasmanian Aboriginal culture are at least 20 000 years old. These include trade and travel up and down the west coast and inland to the east, and the use of ochre.

15 000 years ago, the climate became warmer and wetter. The rainforest spread into this area. Wallabies live in open country, so they were forced out. The people who hunted them also had to move on, and Kuti Kina was abandoned.

The size of the population when Europeans arrived in Tasmania is thought to have been about 4 000 to 5 000. They were not a declining society, but still evolving.

The Aboriginals had no system of recording their own history. Study of their culture was not undertaken until contact with Europeans had erased much of their culture.

1.2 EUROPEAN DISCOVERY

1.2.1 Dutch Exploration, 1606–1642

In 1606, Captain William Jansz in the Duyfken was sent from Java to explore the islands of New Guinea and, crossing Torres Strait unawares, coasted along the west of Cape York Peninsula. This was the first of a series of voyages western shores of the unknown land.

Not all voyages were undertaken with the aim of exploration; Dirk Hartog's long journey along the western shore of Australia in 1616 resulted from his sailing too far east on the route from the Cape of Good Hope to Java. Some later Captains on the same route even regarded the western Australian coast as a suitable landfall before turning north for a Java-a commentary on the difficulty of navigation when longtitude had to be established by dead reckoning.

1.2.2 Chronology: 1642–1802

1642 Abel Janszoon Tasman, commanding *Heemskirk* and *Zeehan*, sighted west coast and named his discovery 'Anthony Van Diemensland'. Landings on Forestier Peninsula and near Blackman Bay on east coast.

1772 Landing of a party from Du Fresme's expedition at Marion Bay and affray with the Aboriginals.

1773 Tobias Furneaux in the *Adventure*, became separated from James Cook in *Resolution* and landed a party at Adventure Bay.

1777 James Cook anchored *Resolution* in Adventure Bay on first breadfruit expedition.

1789 John Henry Cox sailed *Mercury* from Cox Bight to Maria Island.

1792 William Bligh, on second breadfruit voyage, anchored *Providence* in Adventure Bay, Bruny Channel and charted south-east coast.

1793 D'Entrecasteaux returned for further exploration of south-east coast. John Hayes, commanding *Duke of Clarence* expedition, explored Derwent River.

1798 Matthew Flinders and George Bass circumnavigated Tasmania.

1802 Nicholas Baudin, commanding *Geographic* and *Naturaliste* explored south-east coast.

1.3 SETTLEMENT

1.3.1 Risdon Cove

The first settlement of Tasmania was at Risdon Cove, on the eastern shore of the Derwent River in 1803, established to assert British sovereignty over the island.

Lieutenant John Bowen was commissioned to make the Derwent settlement and sailed from Sydney with the *Albion* and *Lady Nelson*; the two vessels separated in a gale but were anchored at Risdon by 11 September 1803, when Bowen went ashore. The whole party of free, convict and military only numbered 49.

1.3.2 The Settlement at Hobart

The British cabinet, impressed by Governor King's warnings on possible French penetration, decided to establish a settlement at Port Phillip direct from Britain and, to this end, commissioned Lieutenant-Colonel Collins to command an expedition.

The settlers eventually arrived and formed a temporary camp near the site of the modern Sorrento township in Victoria. However, the site proved unsuitable and Collins moved his command to the Derwent Estuary because of its reputation as a safe harbour and the fact that Risdon had already been settled.

On 15 February 1804, Collins, with the first detachment from Port Phillip in the *Lady Nelson* and *Ocean*, anchored off the new settlement at Risdon. A quick inspection satisfied Collins that the site was quite unsuitable and he made his own reconnaissance, eventually selecting the area on the western bank known as Sullivans Cove and ordering that the expedition should be disembarked with all its stores in the vicinity of Hunters Island.

Sullivans Cove had gentle slopes, a fine stream running from Mt Wellington and deep water which would accept the draught of any vessel.

1.3.3 Settlement on the Tamar

While Lieutenant-Governor Collins was still in Port Phillip Bay, wondering where best to settle, he had sent William Collins on a voyage of exploration to the Tamar Estuary.

By the time William Collins returned with good reports of the Tamar for settlement, the Lieutenant-Governor was already preparing for the expedition to the Derwent.

A short while later, Governor King received a despatch from Lord Hobart which recommended the establishment at Port Dalrymple.

He nominated Lieutenant-Colonel William Patterson as Lieutenant-Governor of the new colony who then set sail with two ships. After a first attempt was forced back by adverse winds, the party of 181 soldiers and convicts in four ships arrived at Outer Cove (George Town) on 4 November 1804. After exploring the region, Patterson established York Town as his headquarters. This choice proved unsuitable and in March 1806 the settlers moved to the head of the Tamar, to Launceston.

1.4 CHRONOLOGY: 1805–1817

1805 Collins forced by famine to cut rations by one-third.

1806 Settlers moved from York Town to Launceston area.

1807 Thomas Laycock's party crossed island overland from Port Dalrymple to Hobart. First Norfolk Island settlers shipped to Hobart in *Lady Nelson*.

1809 Governor William Bligh aboard *Porpoise* anchored in Derwent after NSW mutiny and embarrassed Collins with problems of jurisdiction.

1810 Lieutenant-Governor Collins death. Issue of newspaper *Derwent Star*.

1811 Governor Lachlan Macquarie's first visit to Tasmania.

1812 Lieutenant-Governor Thomas Davey arrived. Northern settlement at Port Dalrymple made subordinate to Hobart. *Indefatigable* brought first shipload of convicts direct from England.

1815 Hobart and Port Dalrymple declared free ports for import of goods. Davey proclaimed martial law against bushrangers. James Kelly circumnavigated island in a whaleboat.

1816 First issue of *Hobart Town Gazette*.

1817 Succession of William Sorell as Lieutenant-Governor.

1.5 BUSHRANGERS

During the first fifty years of settlement bushrangers proved a real obstacle to the settlement of Tasmania.

From 1806, when Lieutenant-Governor Collins ordered seven prisoners absent in the bush to return to Hobart Town camp, the colony lived in fear of the bandits. At the same time they depended on the kangaroo meat they traded with non-outlaws for clothing, ammunition and spirits.

The Government did not have enouth soldiers to catch the bushrangers. In addition settlers could not procure legal redress without going, with witnesses, the 700 miles to Port Jackson, a prohibitively expensive and inconvenient business.

By 1814 the military and free settlers feared the bushrangers and convicts would combine forces and over throw the military rule. Those living outside the town were more troubled by bushrangers and Aboriginals. Both Europeans and Aboriginals suffered many hardships caused by the bands of escaped convicts, soldiers and settlers who went bush. In 1814 Lieutenant-Governor Davey declared martial law, and an open season on bandits. Many bandits were killed, or captured and hanged.

Sorell took a hard line against the bushrangers and pursued them relentlessly. Large rewards were offered for their capture.

A breakthrough for the Government came in 1817 with the capture of Mary, the Aboriginal mistress of the bushranger Michael Howe. She helped the soldiers track the bushrangers and many bandits were captured with her help. Michael Howe was captured and killed in 1818.

1.6 CHRONOLOGY: 1820–1967

1820 Visit by John Thomas Bigge to conduct inquiry into colonial administration.

1821 Second tour by Governor Macquarie.

1822 Penal settlement established at Macquarie Harbour.

1823 Passage of British Act for the better administration of justice in NSW and Van Diemen's Land.

1824 Inauguration of Supreme Court, arrival of Lieutenant-Governor George Arthur.

1825 First Launceston newspaper, the *Tasmania and Port Dalrymple Advertiser*, established. Tasmania constituted a colony independent of NSW. Establishment of appointed Executive and Legislative Council. Martial Law proclaimed against Aboriginals.

1829 First settlement at Emu Bay (Burnie).

1830 George Augustus Robinson began his mission to conciliate the Aboriginals. First use of juries in civil cases. Beginning of the 'Black Line', the military campaign to round up the Aboriginals. Publication of *Quintus Servinton*, first novel to be published in Australia. Port Arthur established as a penal settlement.

1831 Approval of British Government's new land regulations discontinuing free grants of land, and replacing them with land sales.

1832 First shipment of Aboriginals to Straits Island. Establishment of the Caveat Board to settle land disputes and to confirm titles. Maria Island closed down as a penal settlement.

1833 Macquarie Harbour penal settlement closed down.

1834 Henty brothers from Launceston became first settlers in Victoria occupying land in Portland Bay area.

1835 John Batman sailed from Launceston to Port Phillip as agent for the Port Phillip Association. Tasmania divided into counties and parishes. Opening of Ross Bridge. Population estimated as 40 172 persons.

1837 Arrival of Sir John Franklin and assumption of office as Lieutenant-Governor.

1838 Sessions of Legislative Council opened to the public.

1840 Cessation of transportation to NSW and consequent increase in numbers transported to Tasmania. Population estimated as 45 999 persons.

1841 Assignment System of convict discipline replaced by the Probation System. Rossbank Observatory for magnetic and meteorological observations established in Hobart.

1842 Tasmania created a separate Anglican diocese. Hobart made a city. Peak year for convict arrivals (5 329).

1843 Recall of Sir John Franklin and succession of Sir John Eardley-Wilmot.

1844 Transfer of Norfolk Island penal settlement from NSW to Tasmanian control.

1845 Resignation of the 'Patriotic Six' members of the Legislative Council, over the drain on colonial revenue for support of Imperial Police.

'Patriotic Six'

1842 to 1845 were years of depression. The new Governor, Sir John Eardley-Wilmot, however, was instructed to reduce the expense of the colony. Being prohibited to use the Military Fund to meet growing commitments he sought to increase duties on tea, sugar and imported goods. When the six elected members of the Council opposed the estimates, the Governor claimed a deliberative as well as a casting vote to ensure passage of his bills. At this

Chas Swanston
Michael Fenton
Richard Dry
Thomas Gregson
William Kermode
John Kerr

all resigned for which they received enthusiastic support from the settlers.

1846 Recall of Eardley-Wilmot. Foundation of the Launceston Church Grammar and The Hutchins schools.

1847 Succession of Sir William Denison. The Lieutenant-Governor re-appointed the 'Patriotic Six'.

1848 Tasmania now the only place of transportation in the British Empire.

1850 Foundation of the Anti-Transportation League. Population estimated as 68 870 persons.

1851 British Act provided for limited representative government. First elections for 16 non-appointed members of the Legislative Council.

1852 First payable gold found near Fingal. Elections held for first municipal councils in Hobart and Launceston.

1853 Arrival of last convicts to be transported. First Van Diemen's Land postage stamp (Id. Blue) issued.

1854 Bad floods throughout Colony. Passage of bill establishing responsible government.

1855 Succession of Sir Henry Fox Young: title now Governor. British Government Constitution Bill.

1856 Name of Van Diemen's Land changed to Tasmania. Advent of responsible self-government. Opening of new bi-cameral Parliament with W.T.N. Champ leading first government in the House of Assembly. Reorganisation of Police Department.

1858 Council of Education set up. *Rural Municipalities Act* passed.

1859 Charles Gould appointed to make geological survey of western Tasmania. Telegraph link established with Victoria.

1860 Population estimated as 89 821 persons.

1861 Succession of Colonel Thomas Gore Brown. Telegraph cable to Victoria failed.

1862 Promotion of scheme for a railway between Launceston and Deloraine.

1864 Arrival of first successfully transported salmon and trout ova.

1868 Visit by Alfred, Duke of Edinburgh. Primary education made compulsory.

1869 Succession of Charles Du Cane. Death of William Lanny, thought to be the last male full-blood Aboriginal. Death of Sir Richard Dry. New telegraph cable laid to Victoria.

1870 Withdrawal of remaining Imperial troops. Population 99 328 (Census).

1871 Opening of Launceston-Deloraine railway. Tin discovered at Mt Bishoff.

1872 Contract concluded for building Main Line Railway.

1873 Main Line Railway construction began. Start of economic recovery.

1874 Riots in Launceston in protest at rates levied for Launceston-Deloraine railway.

1875 Succession of Sir Frederick Weld.

1876 Race meetings established at Elwick. Gold nugget worth $12 200 found at Nine Mile Spring. Death of Trugannini, thought to be last female full-blood Aboriginal. Mainline Railway opened for traffic.

1877 Port Arthur closed as a penal settlement.

1878 Increased activity in exploration of West Coast.

1879 Settlement of constitutional issue known as the 'Hunt Case'. Rich lode of tin discovered at Mt Heemskirk.

1880 First telephone in Tasmania with line from Hobart to Mount Nelson Signal Station.

1881 Succession of Sir George Strahan. Population 115 705 (Census).

1882 Increased prospecting on the West Coast.

1883 Discovery of the 'Iron Blow' at Mt Lyell.

1885 Russian war scare followed by activity in improvement of defences. Formation of Mt Lyell Prospecting Association.

1887 Succession of Sir Robert Hamilton.

1890 Establishment of University of Tasmania.

1891 Collapse of Van Diemen's Land Bank; deep depression.

1892 Mt Lyell Mining Co. established.

1893 Succession of Viscount Gormanston.

1896 Establishment of Tattersalls Lottery by George Adams.

1898 Serious bush fires. Tasmanians four to one in favour of Federation at poll.

1899 Departure from Hobart of *Southern Cross* (Borchgrevinck) expedition to Antarctic.

1900 Departure of Tasmanian contingent to fight in the Boer War.

1901 Proclamation of the Commonwealth read. Polling for first elections to Federal Senate and House of Representatives. Succession of Sir Arthur Havelock. Population 172 475 (Census).

Members and Senators Elected 29–30 March 1901, Tasmania

(The first Commonwealth election was held under State electoral legislation. In Tasmania, the Hare-Clark system was used with the whole State as the electorate.)

Members of the House of Representatives

E.N.C. Braddon
D.N. Cameron
P.O. Fysh
K. O'Malley
F.W. Piesse

Senators

D.J. O'Keefe
J.H. Keating
C.S. Cameron
H. Dobson
J. MacFarlane

1903 Celebration of a 100 years' settlement cancelled because of smallpox epidemic in Launceston. Suffrage extended to women.

1904 Succession of Sir Gerald Strickland at reduced salary.

1905 Experiments in wireless telegraphy between Tasmania and the mainland.

1907 New Public Library opened; built with gift from Andrew Carnegie.

1909 Succession of Sir Henry Barron. Potato crop wiped out by Irish blight. State's first Labour Government under John Earle.

1912 Disastrous fire at North Lyell, Queenstown.

1913 Succession of Sir William Ellison Macartney.

1914 First aeroplane flight in Tasmania. Departure of first Tasmanian contingent to fight in Great War. Formation of Hydro-Electric Department.

Hydro-Electricity

The development of hydro-electric power has been important for the economic development of Tasmania. The first plant was opened in Launceston in 1895 at Duck Reach. Work on the statewide system did not begin until 1911 when the privately owned Hydro-Electric and Metallurgical Co. began work at Waddamana below Great Lake. The Company was purchased by the Government in 1914 and the Hydro-Electric Department was formed. An active policy was pursued to encourage high energy using industries to establish operations in Tasmania. The Hydro-Electric Department became the Hydro-Electric Commission in 1930.

The policy of the hydro-industrialisation was pursued in the hope of overcoming Tasmania's disadvantages of a small local market and transport problems. Zinc production began in 1916, fine paper production in 1938, aluminium smelting in 1955 and ferro-manganese production in 1962.

1915 Serious bush fires.

1917 Establishment of Electrolytic Zinc works at Risdon and Snug carbide works.

1918 End of Great War.

1919 First export of frozen meat.

1920 Visit by Edward, Prince of Wales. Purchase of site for Cadbury's chocolate factory at Claremont.

1921 Population 213 780 (Census).

1922 Completion of Waddamana power station.

1924 First superphosphate manufactured by Electrolytic Zinc Co. at Risdon.

1925 Discovery of osmiridium fields at Adamsfield.

1927 Inquiry into proposed bridge over Derwent. Visit by Duke and Duchess of York.

1929 Establishment of automatic telephone system in Hobart. Beginning of economic depression. Serious floods throughout Island.



THE MERCURY, MONDAY, APRIL 8, 1929

Thrilling Stories of Flood Disasters

TREMENDOUS DAMAGE AT LAUNCESTON

Thousands Rendered Homeless

Thrilling Rescue Work and Narrow Escapes

City Plunged Into Darkness

Riverside Buildings Swept Away

DAMAGE ESTIMATED OVER MILLION POUNDS

Launceston Wharves and Suburbs Submerged

3,500 Persons Driven From Homes

Full Story of Briseis Disaster

Wives See Husbands Swept to Death

Tremendous Damage in North-West

Eight Lives Lost at Gawler

LAUNCESTON INUNDATED.

AT INVERMAY

Scene of Desolation

Rapson Tyre Factory Flooded

Providing Accommodation

No Lights in the City

Good Work by Police and Firemen

1930 Export prices fell to half 1928 level. Australian pound devalued so that £1 sterling equalled £A2.50 (£1/5s).

1931 Depression continued — 10 per cent in federal basic wage. Initiation of austere Premier's Plan. Conversion loan to reduce rate of interest on internal federal debt by 22½ per cent. Senior Ministers, including J.A. Lyons from Tasmania resigned from Scullin Government. Following the carrying of a vote of no-confidence in the Government elections were held at which Scullins Labor Government was swept from office. Lyons led the opposition United Party to victory.

1932 Joseph Lyons was sworn in as Prime Minister.



J.A. Lyons, Labor Premier of Tasmania 1923–8 and Labor Ministers in the Scullin Government 1929–31 became Prime Minister on 6 January 1932 as leader of the United Australia Party.

1933 Commonwealth Grants Commission appointed to inquire into affairs of Claimant states.

1934 Beginning of 35 years of continuous Labor Government with the election of A.G. Ogilvie Ministry. Second phase of hydro-electric development commenced at Tarraleah and Butlers Gorge.

1936 Tasmania linked with Victoria by submarine cable.

1937 Epidemic of poliomyelitis. Economic recovery evidenced by £0.50 'prosperity' loading added to federal basic wage.

1938 Paper mill using native hardwoods established at Burnie. First turbines operating at Tarraleah power station.

1939 Outbreak of World War II. Prime Minister Lyons died in office.

1940 Tasmanians sailed for Middle East with Australian 6th, 7th, and 9th Divisions.

1941 Newsprint production began at Boyer on the Derwent. Tasmanians sailed for Malaya with Australian 8th Division.

1942 Uniform federal income tax commenced.

1943 The floating-arch Hobart Bridge opened for traffic.

1944 Pay-as-you-earn (PAYE) income taxation introduced from 1 July.

1945 End of World War II.

1946 Rejection by Legislative Council to bill to grant Federal Government price control powers for three years.

1947 Court action to stop bank nationalisation by Federal Government. 'Displaced persons' commenced arriving from Europe. Population 257 078 (Census).

1948 Forty-hour week awarded to most workers from 1 January. Tasmanians voted 'No' almost two to one in referendum denying Federal Government power over prices and rents. Legislative Council's denial of Supply forced dissolution of House of

Assembly — Cosgrove Ministry returned to power.

1949 Compulsory X-rays introduced in fight against tuberculosis. Clark Dam at Butlers Gorge completed. Theatre Royal purchased by the Government.

1950 End of federal petrol rationing. Dissolution of House of Assembly granted by Governor and Cosgrove Ministry returned to power.

1951 *Communist Party Dissolution Act* declared invalid by High Court. Double Dissolution of Federal Parliament. Referendum to give Federal Government powers in regard to communism — 'No' vote prevailed although Tasmanians expressed slight preference for 'Yes'.

1952 Single licensing authority established for hotels, clubs, etc. State's free hospital scheme ceased.

1953 In September, Arbitration Court abandoned system of quarterly adjustment of federal basic wage. State wages boards suspended quarterly basic wage adjustments.

1954 Bill passed to resolve deadlocks in House of Assembly. Foundation of the Metropolitan Transport Trust.



Royal visit

1955 Uranium ore discovered at Mt Balfour and Royal George. Bell Bay aluminium plant officially opened. Trevallyn and Tungatinah power schemes officially opened.

1956 State wages boards' restoration of 'cost-of-living' adjustments effective from 1 February but later suspended. Dissolution of House of Assembly and Labor Party returned to power. Official opening of EZ Company's sulphate of ammonia plant. Centenary of self-government celebrated.

1957 Legislative Council rejected bill giving aid to private schools. First satellites — Sputniks I and II — seen over State.

1958 Establishment of Rivers and Water Supply Commission. Public Service Tribunal established as an industrial authority.

1959 First election to fill 35 seats in House of Assembly; Labor re-elected. *Princess of Tasmania* commenced roll-on roll-off ferry service Melbourne to Devonport.



1960 Liapootah power station commissioned. Zeehan-Strahan railway closed. Inland Fisheries Commission created. First Tasmanian telecast.

1961 *William Holyman*, cargo container vessel, entered Bass Strait trade. Legislative Council rejected equal pay legislation.

1962 Catagunya turbines began producing electricity. State Wages Boards granted three weeks annual leave. State subsidies announced for municipal fluoridation schemes. Closure of Mt Lyell railway, Queenstown to Strahan.

1963 Federal Court increased margins 10 per cent and granted three weeks annual leave. Universities Commission recommended medical school for Tasmanian University.

1964 Tasman Bridge opened for traffic. Hobart's water supply fluoridated. Glenorchy raised to city status.

1965 Provisional driving licences introduced. Dental Nurse scheme for schools announced.

1966 Decimal currency introduced 14 February. Burnie-Launceston co-axial cable completed. Equal pay for certain State Public Service females. Breathalyser tests approved for use by police. STD introduced.

1967 Federal Arbitration Commission abolished basic wage and substituted total wage concept but basic wage retained in State awards. Mt Cleveland tin mining town of Luina completed.

1.7 THE 1967 BUSHFIRES

On Tuesday, 7 February 1967, bush fires in Southern Tasmania caused 53 deaths and contributed to a further 9 deaths; destroyed tangible property valued at more than $25 million and left thousands of people homeless; devastated 653 000 acres of farm land, forest and bush in fourteen municipalities causing severe stock and fodder losses; and brought about an almost complete breakdown in communications.

Weather conditions during the preceding three months had been very warm and dry but earlier good spring rains had brought on heavy growth; consequently grass and litter were abundant and tinder dry. The four days before the disaster had been characterised by rising temperatures, freshening hot northerly winds and falling relative humidities; warnings of very high to extreme fire danger had been given in meteorology bulletins each day and featured by press, radio and television. The maximum fire danger index for the actual disaster day was 96, one of the highest readings in recent Australian records.

The weather conditions in South Tasmania on 7 February 1967 were not unique. Similar dangerous combinations of high temperature, low relative humidity, high wind velocity and accumulated drought effect seem to have occurred in 1898, 1912, 1914, 1927, 1934 and 1940 while heavy fires in areas adjoining Hobart, and including Mt Wellington, are recorded in 1898, 1914, 1927, 1934, 1946 and 1961. It is worth emphasising that even in periods of extreme fire danger, spontaneous combustion does not occur — the fire must have an external cause, and usually the agent is man.

The fires were described as "wild fires" of high intensity. In some cases, especially in hilly or mountainous areas, they raged so fiercely that the rising hot air set up fire whirlwinds which caused severe mechanical damage to trees by tearing large limbs off, and which sent flames hundreds of feet into the sky. Spot fires, caused by wind-blown embers, sprang up ahead of the main fire bodies and were particularly troublesome in the open forest and grassland around the outer Hobart area.

Housing and Building Losses, 7 February 1967

Local Government Area	Houses	Cottages and Shacks	Farm Buildings
Hobart	433	45	15
Brighton	31	5	6
Bruny	2	1	1
Clarence	24	16	4
Esperance	31	38	2
Glenorchy	58	15	..
Green Ponds	1	..	2
Huon	50	8	20
Kingborough	303	96	2
New Norfolk	42	8	2
Oatlands	2	..	(a)
Port Cygnet	42	2	..
Richmond	18	3	(a)
Sorell	35	12	(a)
Total	1,072	249	(a)

Local Government Area	Factories	Retail Establish-ments	Churches and Halls
Hobart	8	3	5
Brighton	1	1	3
Bruny	1	..	..
Clarence	..	..	2
Esperance	3	..	2
Glenorchy	..	2	1
Green Ponds	2	..	..
Huon	16	1	3
Kingborough	9	12	13
New Norfolk	3	..	2
Oatlands	..	1	..
Port Cygnet	4	1	1
Richmond	..	3	..
Sorell	2	..	..
Total	49	24	32

(a) Numerous; no accurate count.

1.8 CHRONOLOGY: 1968–1983

1968 HEC Repulse Dam on lower Derwent completed. Batman Bridge across lower Tamar opened. Federal Government subsidy for apples and pears exported to UK and other countries. Full adult suffrage for Legislative Council elections from 1 July 1969. Capital punishment abolished.

1969 Parangana Dam (Mersey-Forth scheme) completed. North-Western General Hospital opened at Burnie. State election resulted in 17 ALP, 17 Liberals, one Centre Party (Mr Lyons). Mr Lyons combined with Liberals to form coalition government, ending 35-year Labor rule in Tasmania. Full Bench of Federal Arbitration Commission granted equal pay to females performing equal work; female salaries to be raised to male salaries in stages. Copper smelter at Mt Lyell closed; concentrate sent to Japan and Port Pirie (SA) for treatment.

1970 First pyrites railed from Rosebery to Burnie sulphuric acid plant. EZ Co. to establish $6.3m residue treatment plant. Royal visit. Parliament legislated to introduce permanent daylight saving.

1971 APPM Ltd Wesley Vale paper plant opened. Serious shipping strike. Population 390 413 persons (Census).

1972 K.O. Lyons resigned cabinet portfolios and ended Liberal-Centre Party Coalition. APPM Long Reach woodchip plant commenced production. ANL vessel *Princess of Tasmania* made her final trip to Tasmania. Federal elections: ALP returned to power (after 23 years in opposition).

1973 First train travelled the Bell Bay rail link. The first legal casino in Australia, Wrest Point, officially opened. The $121m Mersey-Forth HEC scheme officially opened. Storeys Creek tin mine closed down. The *Blythe Star* lost at sea while on charter to the Transport Commission. Tasmania voted in line with other Australian states on prices and incomes referenda. 'No' to both.

1974 Workers under State Wages Boards' awards granted four weeks annual leave. Women under State Wages Boards' determinations awarded equal pay. Gordon Dam completed. No fault third party insurance scheme implemented.

1975 Tasmanian surburban rail services ceased. TAB began operating. Transmission of colour television programs commenced in Tasmania. Federal Government takeover of Tasmanian railways. Temporary Bailey bridge across the Derwent opened. Hotels allowed to open for Sunday trading.

1976 A government commissioned inquiry recommended the abolition of the TCAE in Hobart and expansion of the northern campus. Sea cargo to and from Tasmania to be subject to a freight-equalisation scheme. South-West National Park doubled in size in line with South-West Management Plan proposals. The Neilson Labor Government returned to power with a reduced majority.

1977 Commonwealth Government confirmed Kingston as the site for Australia's new Antarctic Base. The Premier, Mr Neilson, announced his retirement to become Tasmania's Agent-General in London. Tasman Bridge re-opened 8 October. Mr Lowe replaced Mr Neilson as Premier. Drought conditions in many parts of the State the worst for 30 years.

1978 Large scale drug operation involving the smuggling of cannabis oil to Tasmania from Thailand uncovered by narcotics agents. The Tasmanian Railways came under full control of the Australian National Railways Commission. The Commission announced that all regular passenger train services in Tasmania would cease from the end of July. A major study of the State's coal reserves revealed a potential deposit of 251 million tonnes in the Fingal Valley.

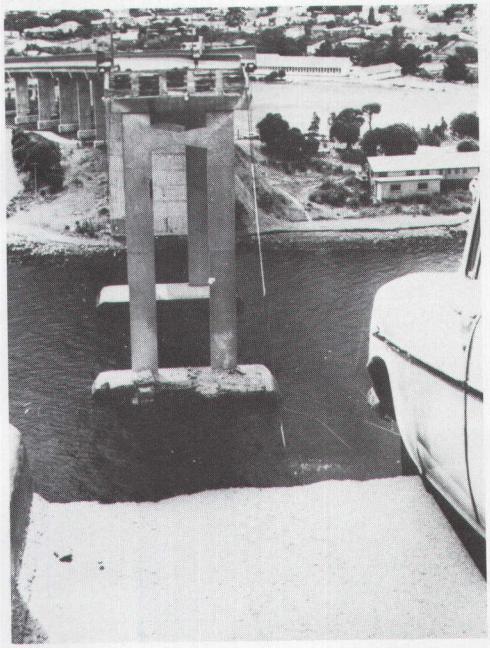
1.8.1 The Tasman Bridge Disaster

At 9.27 pm on Sunday 5 January 1975, the Australian National Line ore carrier Lake Illawarra, bound upstream for the Electrolytic Zinc Company's works at Risdon, collided with the Tasman Bridge. The freighter collided first with the pile cap of one pier, and then with the pier cap of another.

The supporting pile groups were wrecked, the pier columns and the three spans supported by them collapsed and a large section of the bridge deck fell into the bow of the ship, sinking it. This left the bridge with a 128 metre gap, and damaged two more piers.

Seven of the Lake Illawarra's crew of 42 died. In addition, a number of cars crossing the bridge at the time plunged into the river 30 metres below, adding another five to the death toll. Not all bodies were recovered.

The Lake Illawarra and bridge debris sank in water over 30 metres deep, with the ship at an angle to the bridge. The carrier remains on the sea bed.



1979 The State Government to expand the South-West Conservation area to more than 20 per cent of the State's total area. Mr Charles Woodhouse appointed as the State's first Ombudsman. Tasmania's Parliamentary Hansard introduced. Mr Bill McKinnon (Labor), who lost his seat in the 28 July election, filed a petition in the Supreme Court claiming new Labor MHA in Franklin, Michael Aird, breached the *Electoral Act* by spending more than the statutory limit of $1 500 on his election expenses. This began the so-called 'Electoral' or 'Constitutional Crisis'. The HEC released a report which recommended a $1.36 billion power development scheme involving the Lower Gordon, Franklin and King Rivers to meet the State's electricity needs until the year 2000.

1980 Work commenced on the first stage of a second Hobart bridge. A by-election for the Denison electorate was held after the 'electoral crisis' of the 1979 State election. The Treasurer introduced legislation into the House of Assembly to allow $530m to be spent on the HEC's Pieman River development . East-West Airlines were given approval for the only direct Hobart-Sydney air service. The National Parks and Wildlife Service started a major advertising and promotion campaign aimed at short-circuiting the HEC's proposed Franklin-Lower Gordon power scheme. The State Government decided to save the Franklin River by opting to flood the Gordon at the junction of the Olga and to construct four single state schemes on the King River. Parts of Southern Tasmania were facing the worst drought since white settlement. The Gordon-above-Olga power scheme was passed by the House of Assembly. The first direct flight from Hobart to Christchurch was made by Ansett Airlines. The Upper House Select Committee recommended the HEC's proposed Gordon-below-Franklin Scheme and rejected the Government proposed Gordon-above-Olga Scheme.

1981 Bushfires at Zeehan destroyed 40 homes. The State Government banned Saturday afternoon trading by companies employing more than 100 people on a statewide basis. The Commonwealth Government agreed to subsidise airfares to and from the State by 10 per cent following acceptance of the Holcroft report. The State Government announced the end of free public hospital treatment in Tasmania. A referendum was announced for November concerning the State's next power development. The Premier, Mr Doug Lowe, was deposed and Mr Harry Holgate replaced him as Premier. Mr Lowe resigned from Cabinet, Caucus and the ALP and took his place in the House of Assembly as an independent. The State Labor Government lost its majority in the House of Assembly with the resignation of a supporter of Mr Lowe, Mrs Mary Willey. The Tasmanian Conservation Foundation called for an informal vote in the referendum by writing 'no dams' on the ballot paper. A Royal Commission was appointed to investigate the powers of the Legislative Council. The State Government pledged that a dam would be built in the South-West whatever the referendum result. The referendum resulted in an extremely large informal vote but most supported the Gordon-below-Franklin option.

1982 The South-West National Park, the Franklin-Lower Gordon Wild Rivers National Park and the Cradle Mt-Lake St Clair National Park were nominated by the Commonwealth Government for the World Heritage List; the proposed dam on the Franklin River lay within the nominated area. The Holgate Labor Government was defeated on a no confidence motion by a majority vote of the Liberal Opposition, two Labor defectors and a Democrat. The ensuing election resulted in the Liberal Party forming a Government in its own right for the first time in Tasmania's history. Legislation for the controversial $453m Gordon-below-Franklin power scheme finally passed through Parliament. State Government requested Federal aid to help fund Tasmania's record deficit estimated at $38m. The Federal ALP Conference decided to oppose the construction of the Gordon-below-Franklin scheme. Premier Gray announced that police would act against conservationists who attempted to stop work on the Gordon-below-Franklin power scheme. The Minister for Primary Industry announced that the Tasmanian Apple and Pear Marketing Authority (TAMA) would be disbanded. Fires raged through the south of the State in the wake of Hobart's hottest November day since 1937 (35.6°C). The Federal Labor Party announced a no-dams policy for a Federal Labor Government in a decision which split the party in the State. Tasmanian police given new powers in a bid to combat a blockade of dam site

construction in the South-West by conservationists. The Senate select committee on South-West Tasmania came out against building the dam and put further pressure on Federal Cabinet to intervene. The Attorney-General, Mr Bingham, announced that Tasmania had formally applied to have its opposition to World Heritage listing heard by the World Heritage Committee in Paris and announced that he would go to Paris to lobby the Committee. Federal Government announced it would not intervene in the construction of the Gordon-below-Franklin dam. The World Heritage Commission placed Tasmania's endangered South-West wilderness area on its list. A total of 196 people were arrested for trespassing at the dam site.



1983 New drink-driving legislation reducing the permissible blood alcohol level for drivers from .08 to .05 and introducing random breath tests came into force. Conservationist leader Dr Bob Brown was elected to the House of Assembly on a countback following the resignation of Dr Norm Sanders. The Shell Co. of Australia revealed that coal mining at Mt Nicholas in the north-east could be sustained for 40 years. Tasmania's unemployment rate rose to 11.4 per cent. The Premier, Mr Gray, rejected $500 million, offered by the Commonwealth Government to delay construction of the Gordon-below-Franklin dam. Tasmania's biggest ever rally was held to protest against the damming of the Franklin River; an estimated 12 000 to 20 000 people attended. Commonwealth Opposition Leader, Mr Hawke, pledged to stop construction of the Gordon-below-Franklin power scheme and offered financial assistance to meet the State's energy needs to the year 2000 as well as alternative employment for the HEC workforce should the Labor Party win government on March 5. 'Green Day', a day designated by the Tasmanian Wilderness Society as a day of active protest, resulted in a record number of arrests (228) in the south-west. Hobart experienced its driest summer for 85 years. The Liberal Party was defeated by the Labor Party in the Federal election although Tasmania's five Liberal members of the House of Representatives were re-elected. Mr. Hawke was sworn in as Australia's new Prime Minister. Regulations under section 69 of the *National Parks and Wildlife Act* 1975, gazetted by the Commonwealth Government, made any further work on the Gordon-below-Franklin dam illegal. A Commonwealth writ, seeking an injunction to permanently stop work on the proposed Gordon-below-Franklin dam, and a Tasmanian writ seeking a declaration from the High Court that regulations gazetted under which the Commonwealth was acting were constitutionally invalid, were filed in the High Court. The Day Light Saving Bill, to permanently entrench a five month period, was passed by the House of Assembly. The lowest temperature yet recorded in Tasmania, -13°C, was registered. The High Court ruled that the Gordon-below-Franklin dam could not go ahead in a landmark decision. Alternative works to the Gordon-below-Franklin dam began, including Guildford-Hampshire and Cradle Mountain road links, the Mt Black deviation near Tullah, and the Lyell Highway 14 mile deviation. Argument began on the value of compensation. The Commonwealth Government committed $23 585 000 compensation for job alternatives to the south-west dam. The State Government decided to speed up work on access roads for the $460 million Henty-Anthony and King River hydro power schemes. The Premier put the comprehensive, long-term south-west dam compensation at $3 455 million. The State Budget hit smokers with a 13 cent per packet increase and people using credit cards or making savings withdrawals with a 15 cent transaction tax. The Legislative Council took only 30 minutes to approve the $549 million King and Anthony Power schemes. Cathy Franks was crowned Miss Tasmania 1984.



The new Devonport $6.5 million jet airport was officially opened. A Legislative Council Select Committee report recommended the formation of a greater Launceston by amalgamating the urban areas of five surrounding municipalities. The greater Launceston proposal was rejected by four of the six municipalities involved in the referendum held to decide the issue. Conara Junction named as a possible site for a coal fired thermal power station. *Condor* won line honours in the Sydney-Hobart yacht race after *Nirvana* was disqualified after a protest, lodged by *Condor*, was upheld; *Challenge* won the race on corrected time. Tasmania's road toll, 70 for 1983, was the lowest in 20 years.

Dam Compensation Payments

When the High Court decision, making further work on the Gordon-below-Franklin power scheme illegal was handed down, negotiations as to the level of assistance were entered into. Agreement was reached that the following assistance would be provided in full settlement of the undertakings:

- $45.3m for employment creation projects ($16.9m was paid in 1983–84) plus direct Commonwealth expenditure of $5.6m on upgrading the Hobart Airport ($2.6m was spent in 1983–84).
- $200m in equal annual instalments over 10 years as subsidy to providing 112 MW of electricity which would have been the output of the Gordon River Power Development Stage 2.
- Ex-gratia payment of $25m for expenditure incurred on the scheme.

1.9 CHRONOLOGY: 1984

January

Tasmania won its Sheffield Shield match against Victoria by an innings and two runs with a day to spare. Thousands of dollars worth of regenerated forest, saw log and pulp wood were destroyed by fire. One road fatality was recorded in Tasmania during the Christmas-New Year holiday holiday period. Charles Davis Ltd, owners of FitzGeralds, bought McKinleys Pty Ltd for $1 million, and Petersville Industries took over the General Jones vegetable processing factory at Scottsdale. Marihuana plants with an estimated street value of $150 000 were seized when police raided a plantation on the outskirts of Smithton. Roger Woolley, Tasmania's wicket keeper in the Sheffield Shield competition, was selected to tour the West Indies as a member of the 16-man Australian cricket squad. The Hobart City Council made known its intention to turn the 122 hectare Knocklofty Reserve into a recreational area for picnicking, cycling, horse-riding and walking. Industrial Equity Ltd gained control of Cascade Brewery Co. Ltd.

February

The State Government 15 cent debit tax on withdrawal transactions came into force. The United Launceston Citizens Committee continued to push for a greater Launceston under the new leadership of Mrs Sheena Butler. 'Viscount Geoffrey' won the Hobart Cup. Sir Peter Crisp, one of Tasmania's leading judicial figures, died at the age of 71. Tasmanian bowler, Peter Clough, snared 8-95 against Western Australia, the best first class figures by a Tasmanian bowler this century and the third best ever recorded by a Tasmanian. The $48.5 million Bowen Bridge was opened by the Prime Minister, Mr Hawke. Three Tasmanian drive-in cinemas closed, resulting in the loss of 40 jobs. The HEC was fined $750 in the Hobart Magistrate's Court on two charges of polluting the Pieman River. The Launceston Cup was won by 'Martian's Son'.

March

The Tasmanian Wilderness Society launched a campaign for the creation of a 1 760 000 hectare world class national park in Western Tasmania. Mr C.G. Brettingham-Moore was appointed puisne judge of the Tasmanian Supreme Court to replace Mr Justice Everett. The Premier, Mr Gray, offered to trade his $319 million compensation claim on lost South-West jobs for the $1.5 million submarine construction venue and exclusive 200 mile zone fishing rights. Former Wynyard and Devonport rover Jan Frimley died after being injured in a practice match at Queenstown. Mr Brian Broadby was elected Lord Mayor of Hobart. The Federal Government ruled out any South-West compensation deals with the Tasmanian Government concerning the site for the Navy submarine contract. A violent wind storm caused damage estimated at hundreds of thousands of dollars as it ripped through the North-West Coast. The APPM Kings Cup and National Regatta began at Lake Barrington with oarsmen vying for a place in Australia's squad for the Los Angeles Olympic Games. The Federal Government offered the Tasmanian Government $270 million South-West compensation settlement; the State Government began preparing a counter bid. $3 million, part of the South-West

compensation package, to be used to upgrade Hobart Airport to give a limited international capacity. APPM and Forest Resources to pay increased royalties to the State Government for a greater use of forest resources. The first stage of Tasmania's first privately financed and owned eel farm was opened.

April

Fifteen thousand people at Lake Barrington watched NSW win the APPM King's Cup. Fifty employees (one-third of the total) at Cleveland Tin Mine were retrenched. The Tasmanian Government accepted in principle the Commonwealth $270 million South-West compensation offer. New seismic and geological studies showed that Bass Strait may have oil pockets in an area that ESSO and BHP rejected. More than 5 000 people rallied to the cause of nuclear disarmament in Hobart in the largest anti-nuclear march seen in the city. Work in Tasmania's West Coast mines and HEC sites stopped as a result of a meeting of more than 400 striking unionists at Burnie. Launceston hockey player Penny Gray was selected in the Australian women's team for the 1984 Olympic Games in Los Angeles. Mr Richard Southee was appointed Master of the Supreme Court. The Legislative Council voted 11-6 to defeat a Government move to relate MP's pay rises to public sector wage movements. The State Government unveiled a model and topographical map of its controversial $30 million irrigation scheme for South-West Tasmania. A Hobart general practitioner, Dr Boughey, was sentenced to life imprisonment after being found guilty of murder.

May

Tasmania's first test-tube baby, a boy, was born. The State Government won its battle against the Legislative Council to link parliamentary salaries to rises awarded to its public servants. The Mt Lyell Mining and Railway Co. announced it would cut back its workforce by 50. The State Government agreed to investigate development of the historic Abt railway at Queenstown as part of a drive to boost tourism on the West Coast and increase employment. The Premier said the Government would do everything in its power, including direct financial help to extend the life of the Mt Lyell mine at least until alternative sources of employment could be found for the mine's workforce. A three month search for the Tasmanian Tiger began at a secret site in the Central Highlands. APPM stood down 460 employees as production at its Burnie mill continued to slow down because of a two-week old dispute. The Tasmanian Aboriginal Centre began a campaign of direct negotiations with big Tasmanian companies for land rights.

June

The Wrest Point Convention Centre was opened. Mr Alby Broadby, the member for Gordon, was elected President of the Legislative Council. The Federal Government announced that it would give Tasmania $26 million to buy a West German replacement for the Empress of Australia. Brambles Industries Ltd and the State Government announced they were to begin a joint shipping service between Burnie and Melbourne. Fire caused $1 million worth of damage to the Supavinyl Products factory at Bell Bay. Mr Pearsall was elected Deputy Premier following the retirement of Mr Max Bingham. Fire caused approximately $1 million damage to Hobart's historic Theatre Royal. Mrs Carmel Holmes entered parliament as a result of Mr Bingham's resignation. Mr Hawke and Mr Gray signed an agreement for $270 million compensation to Tasmania for the loss of the Gordon-below-Franklin power scheme. Fire severely damaged the old Hobart Railway Station. Nurses began a 24 hour strike, the first ever by Tasmanian nurses. The Premier announced a $6.9 million road building project to make Queenstown the gateway to the South-West World Heritage area.

July

Approximately 450 men were stood down at the Savage River iron ore mine and the Port Latta pelletising mill as a result of an indefinite strike by members of the Federated Drivers and Firemen's association. Hobart barrister, Mr Peter Underwood, was appointed to the newly created position of seventh Judge of the Supreme Court of Tasmania. The State Government announced plans to spend $6 million of dam compensation funds on upgrading the Hobart Airport. The National Companies and Securities Commission started the biggest investigation in Tasmania's corporate history into share transactions between the two takeover bidders for the big Tasmanian hotel chain, Four Seasons Ltd. The overseas vessel *Nils Holgersson* was named as the definite replacement for the ageing ferry *Empress of Australia.*

August

The Director of Environmental Control, Mr J.F. Pottinger retired. Hobart's Macquarie and Murray Streets intersection was declared the most historical and prestigious commercial city intersection in Australia. Metal alloy producer Temco Pty Ltd announced plans for a $57 million upgrading at its Bell Bay processing plant. Two men and a woman were killed instantly when a light plane and a glider it was towing, crashed near Woodbury.

Michael Grenda of Launceston became Tasmania's first Olympic gold medalist as a member of Australia's cycling team which was the 4 000 metre teams pursuit in Los Angeles.



The State Government announced it would hand over all Aboriginal remains held in the Tasmanian Museum and Art Gallery in Hobart and the Queen Victoria Museum at Launceston. Mr Peter Patmore (ALP) replaced Mr Michael Barnard in the House of Assembly. The Federal Budget included tax cuts, increased social welfare benefits and a ten per cent tax on wine.

September

Shipping company William Holyman and Sons announced its intention to drop its Hobart and Burnie freight services and centre its operations on Devonport as its port of call. It was announced that the last stage of the Pieman River power development scheme would be called Reece Dam after former Tasmanian Premier, Mr Eric Reece. The State Budget included the introduction of $5 000 per job subsidy designed to create work for 2 000 Tasmanians, as well as a record allocation for a capital works program of $561.2. The State Government agreed to tighter restrictions on shop trading hours. Mr Neil Robson (Bass) announced his resignation from State Cabinet and was succeeded by Mr Brendan Lyons. Tasmania's first mobile breath analysis units were brought into use.

October

The *Empress of Australia* was stranded in Devonport due to industrial action forcing 320 passengers to seek alternative transport to Melbourne. The Federal Government provided $3 million for the upgrading of Hobart Airport. Mr Hawke announced 1 December as the date for the next Federal election.



Carolyn Hurd, Miss Tasmania 1985

November

Hobart experienced 28 millimetres of rain in an hour causing thousands of dollars damage to low lying areas in and around Hobart. Following objections by professional planners and architects in Hobart to the design, size and appearance of the proposed $50 million international hotel, Premier Gray requested that the architects who designed the hotel develop an alternative design to 'address public concern'.

December

The State Government proposed that the Launceston and St Leonards Councils amalgamate and be replaced by an administrator. On Christmas Eve, the Senate election was declared with Senators Aulich, Townley, Coates, Devlin, Archer and Watson being returned and Senator Sanders to take his seat from July 1985. The Liberal Party retained all 5 House of Representatives seats. The Launceston International Velodrome, costing $6 million was officially opened. A crewman went missing off *Yahoo II* and was presumed drowned whilst competing in the Sydney to Hobart Yacht Race. It was the first time in the 40 year history of the race that a life had been lost other than by natural causes. Heavy seas caused a record number of retirements. Line honours went to *Lion New Zealand* and the winner on handicap was *Indian Pacific*.

JANUARY 1985

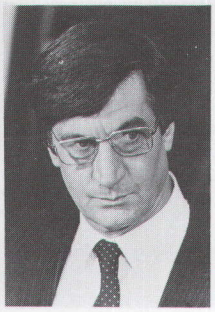
12 World Rowing Championships
Tasmania won the right to host the world open and lightweight rowing championships at Lake Barrington in October 1990.

14 State Industrial Commission
The full-bench of the new State Industrial Commission sat for the first time.

Baldock not to Coach St. Kilda
State Labor back-bencher, Mr Darrel Baldock, dropped plans to coach VFL club St. Kilda in the 1985 season.

17 Bank Robbed
The East Devonport branch of the LBS Statewide Bank was held up and robbed of more than $9 000.

23 Batt Announces Return to State Politics
Former Deputy-Premier, Mr Neil Batt, announced his return to State politics.



24 Cascade Gains Control of Four Seasons
Cascade Brewery Co. Ltd gained control of the Tasmanian Four Seasons accommodation chain.

JANUARY STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	10.2
Retail Sales ($m)	106.7
Value of Building Approvals ($m)	21.3

30 Launceston Amalgamation
State Government announced that it would legislate to amalgamate the municipalities of St Leonards and Lilydale with the City of Launceston to create a new greater Launceston City of over 60 000 people—the largest local government area in Tasmania in terms of population.



31 Writ Against Thermal Power Station
The Northern Midlands Environmental Protection Committee issued a Supreme Court writ on the Hydro-Electricity Commission in an effort to hinder survey work on the proposed coal-fired thermal power station at Conara.

Company Merger
Two of Tasmania's largest firms, Webster Limited and Holyman's, Monds and Affleck, announced an agreement to merge.

Test-Tube Triplets
A Hobart woman gave birth to Tasmania's first test-tube triplets, believed to be only the fourth set of triplets born in Australia under the in-vitro fertilisation program.

Federal Government Rejects Plea to Keep Mt Lyell Afloat
The Federal Government rejected an 11th hour plea from the State Government for a $5 million injection to keep the Mt Lyell copper mine from closing down at the end of 1985.

FEBRUARY

1 MX Missile Tests
Tasmanian anti-nuclear activists condemned the Federal Government's decision to allow United States' MX test missiles to be targeted off Tasmania's coast.

2 AIDS
An action committee was formed by homosexuals in Hobart to monitor the effects of the AIDS virus.

3 'Macbyrne' wins Hobart Cup
The $55 000 Benson and Hedges Hobart Cup was won by 'Macbyrne'.



4 MX Missile Tests
The Prime Minister, Mr Hawke, withdrew Australia's support for the United States' MX nuclear test.

21 Municipal Rationalisation
Premier Gray committed State Government to further municipal rationalisation.

New Sports Complexes
Federal Government announced international sports complexes for Tasmania: $2 million hockey centre for Hobart and a $1.2 million netball centre for Launceston.

FEBRUARY STATISTICS—TASMANIA	
Unemployment Rate (% of labour force)	9.2
Retail Sales ($m)	99.9
Value of Building Approvals ($m)	26.9

22 Woodchipping Environmental Impact Statement
The draft environmental impact statement into the future of the woodchip industry was released.

23 Lost Poppies
A truck lost a load of crushed opium poppy heads between Hamilton and Latrobe.

25 Small Hydro-Electric Schemes
Premier Gray hinted at development of small hydro-electric power schemes in preference to coal-fired thermal station on environmental grounds.

Woodchipping Environmental Impact Statement
Conservationists criticised deficiencies in woodchipping environmental impact statement.

26 RSI
State Government established advisory committee to cut Repetitive Strain Injury in Public Service which costs it $12 000 per week.

38 Hour Week for Retail Motor Employees
2 000 Tasmanian retail motor employees won 38 hour week: Australian first for this industry.

Floor Collapses
Hobart Technical College Floor collapses injuring two.

Hobart Council Split
Hobart City Council Alderman Hurburgh split Council. He alleged some aldermen unnecessarily stalled $20 million worth of projects.

Redevelopment of Launceston Community College
Launceston Community College plan for $15.4 million redevelopment unveiled.

27 'Scruples' wins Launceston Cup
Six year old gelding 'Scruples' won $45 000 Launceston Cup.

Bingo Centre Opens
Tasmania's first Bingo Centre opened in Hobart.

28 Credit Protection
Uniform national credit protection laws on contracts under $20 000 began in all States except Tasmania where the State Government said it would 'wait and see' before legislating.

Launceston's Southern Outlet Opened
Stage 1 of Launceston's southern outlet (7.4 km costing $20 million) was opened. The ceremony was boycotted by four St Leonards councillors protesting against northern council amalgamation.

MARCH

2 Confidential Documents Found at Tip
Confidential State Government documents revealing family, financial and medical details of individuals were found strewn across the Exeter tip.

5 Opening of Devonport Bike Track
Devonport's $186 000 bikeway and walking track from the city centre to olympic pool opened.

7 Redevelopment of Wynyard Airport
$6 million upgrading of Wynyard Airport agreed to with joint funding by State and Commonwealth Governments.

10 Francevic Wins at Symmons Plains
New Zealander Robbie Francevic won the third round of the Australian Touring Car Championship at Symmons Plains raceway.

Track Official Killed at Symmons Plains
A woman track official was killed and three others injured when a car crashed into a marshals box at Symmons Plains raceway.

11 Mersey General Hospital Redevelopment
Plans for the $10 million redevelopment of the Mersey General Hospital at Latrobe were unveiled by the Minister for Health, Mr John Cleary.

13 Australian Newsprint Mills Development
Australian Newsprint Mills unveiled a $21 million plan to develop the former APM forest concession in the Huon.

MARCH STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	8.9
Retail Sales ($m)	106.7
Value of building approvals ($m)	29.2
Consumer Price Index (% increase, Mar qtr)	1.6
Tasmania's Estimated Resident Population	440 800

OBITUARIES

1. Prominent horticulturist, Mr Frank Walker died at the age of 70.
2. Mr Reginald Barker, former general manager of Electrolytic Zinc Company's Risdon Plant, died at the age of 58.

Racing Industry Boost
The State Government announced that $8 million will be injected into the racing industry over the next six years.

14 'Intrigue' Selected in Admiral's Cup Team
Tasmanian yacht 'Intrigue', skippered by Don Calvert, was selected in Australia's Admiral's Cup Team.

15 Municipal Amalgamation
Hobart's metropolitan councils challenged the State Government's handling of the municipal amalgamation issue by lobbying members of the Legislative Council to block the controversial legislation.

16 Woods' World Record
Victorian cyclist, Dean Woods, broke the world 4 000 metre record with a time of 4.34.65 at the Launceston Velodrome.

19 Trustee Banks Bill
State legislation gave Tasmania's two trustee banks more freedom to compete fully against trading and foreign banks.

22 AIDS Case
Health authorities confirmed Tasmania's first AIDS case.

23 'Abel Tasman'
The Tasmanian Government formally took possession of the new Bass Strait ferry 'Abel Tasman' (formerly 'Nils Holgersson') at a handing over ceremony in West Germany.

24 Last 'Drive-ins' Close
Tasmania's two remaining drive-in cinemas at Elwick and Mowbray closed.

25 Smithton-Zeehan Road Link
The State Government revealed details of a $22 million West Coast road link between Smithton and Zeehan.

Hobart's New International Hotel
The revised design for Hobart's controversial hotel unveiled.

APRIL

2 The Mayor of Launceston Resigns
The Mayor of Launceston, Alderman Don Wing MLC, resigned because he was excluded from voting on the municipal amalgamation issue in the Legislative Council because it was ruled that he had a pecuniary interest in this matter.

State's Tax Share Cut
Premier Gray rejected outright the Commonwealth's proposed $40 million cut in Tasmania's share of Commonwealth taxes.

OBITUARY

Prominent Hobart businessman, Mr John Cox, died at the age of 83. Mr Cox was a director of the printing company, Cox Kay Pty Ltd which was established by his grandfather in the 1890s.

10 Dairy Farmers in Protest
Hundreds of angry dairy farmers and their supporters packed the Burnie Town Hall to hear the Federal Minister for Primary Industry, Mr John Kerin, explain his controversial plan to restructure the dairy industry. The Minister was greeted by jeering and heckling throughout the meeting.

Municipal Amalgamation Legislation Passed
The controversial Northern municipal amalgamation legislation was passed by the Legislative Council.

15 Shopping Centre Approved
A $23 million shopping centre for Glenorchy was given Council approval.

16 US Warship Visits Hobart
The nuclear powered cruiser 'USS Texas' dropped anchor in the Derwent River.

APRIL STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	8.4
Retail Sales ($m)	108.7
Value of building approvals ($m)	24.9

19 Forest Rally
Tasmania's first forest rally attracted 1 200 people to Hobart's Franklin Square. After a lunchtime march through the City's streets the protestors gathered to call for the preservation of Tasmania's forest heritage.

24 Devereux Withdraws
ALP State President, Mr John Devereux, withdrew from the Party's endorsed Franklin lineup.

28 Oceanographic Vessel Arrives
The new $12 million oceanographic research vessel, 'Franklin', arrived in Hobart for work with the CSIRO's oceanographic section.

29 Boon Off To England
Launceston's David Boon left for England on the four month Ashes Tour. He was one of 17 Australians named in the Cricket Team.

WOODCHIP DISPUTE

April witnessed a protracted woodchipping industry dispute. The Federated Engine Drivers and Firemen's Association 9FEDFA) picketed the Triabunna Tasmanian Pulp and Forest Holdings' woodchip mill in protest at the underpayment of log fallers by a contractor. The log fallers disassociated themselves from the actions of the FEDFA. A blockade prevented the supply of logs to the mill which was forced to stand down 54 production employees. As the dispute widened a further 56 production staff were stood down at Australian Pulp and Paper Mill's Longreach plant. Police were called to Triabunna to prevent a full-scale confrontation between pickets and truck drivers. Another 24 maintenance staff at Triabunna were stood down.

The 24-day strike ended on 20 April after FEDFA talks with the ACTU. The dispute had cost $2 million and had forced 800 other workers to be stood down.

30 Archbishop of Canterbury Visits Hobart
The Archbishop of Canterbury, Dr Robert Runcie, visited Hobart.

MAY

1 CSIRO Marine Laboratories Opened
Hobart's new $13 million CSIRO Marine Laboratories were officially opened by the Minister for Science, Mr Barry Jones.



Building Worker's Strike
More than 3 000 building and construction workers went on strike for the day to warn the State Government that it did not approve of Queensland Premier Sir Joh Bjelke-Petersen's anti-union stand.

5 Aboriginal Remains Cremated
More than 300 Tasmanian Aboriginals attended the cremation of skeletal remains of their ancestors at Oyster Cove.

14 Mini-Budget
Federal grants and benefits to Tasmania were slashed by $12.6 million in a mini-Budget; the biggest cut involved the axing of the 10% Commonwealth air fare subsidy for travel between Tasmania and Melbourne.

17 Aboriginal Protest
100 chanting and placard-waving Aboriginals invaded the Premier's Department and Launceston public buildings demanding land rights.

21 Renison Strike
150 men were stood down at the Renison tin mine in a row over the proposed use of contract labour.

MAY STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	8.6
Retail Sales ($m)	116.6
Value of building approvals ($m)	35.2

'Abel Tasman' Dispute

May news was dominated by the bizzare happenings surrounding the new Bass Strait ferry, 'Abel Tasman'. A brief description of these happenings and the events which led up to them, in chronological order, follows:

1984:

June
Federal Government agrees to fund replacement for Bass Strait ferry, 'Empress of Australia'.

July
'Nils Holgersson' named as replacement ship.

Aug.
State Government announces that it will run ship by itself.

Sept.
Government sets March 1985 as starting date for service provisional on successful negotiations with unions.

Oct.
Fare structure announced.

Dec.
Ship renamed 'Abel Tasman'; ANL announces that 'Empress of Australia' up for sale next March.

1985:

Feb.
Bad weather in West Germany holds up refitting work on 'Abel Tasman'; ANL agrees to 'Empress of Australia' extension until May.

March
Government announces promotional tour. Resolution of dispute with radio operators clears way for start of voyage from West Germany.

April
Ship laid up in West Germany and crew sacked.

May
Conditions on board the ship described as 'close to anarchy' by the ship's master, Captain James. Tasmanian Police were sent to West Germany but were powerless to evict stewards. Tasmanian Government sought formal delegation of Commonwealth powers for the Tasmanian Police in dealing with the crisis. The Tasmanian Government requested that the 'Empress of Australia' service continue until the end of June 1985 because it was clear that the 'Abel Tasman' would not be in Australia in time to continue the service. The Commonwealth Government repeatedly rejected the request.
It was revealed that the State Government was seeking private ownership of the ship. On 19 May the 'Abel Tasman' finally left West Germany for Tasmania.

JUNE

2 Last Voyage of 'Empress of Australia'
The Bass Strait ferry, 'Empress of Australia' made its farewell voyage from Devonport. During its 13 year service it had made 4 600 trips to Tasmania, and carried more than 1.6 million passengers.

6 Renison Dispute Ends
A 16 day-old dispute at the Renison tin mine ended.

11 Tasminex Investigation
National Companies and Securities Commission announced an investigation into Tasmania's former boom nickel company, Tasminex N.L. after substantial changes in the Company's shareholding.

12 Tasmanian Tiger Skeleton Found
The first complete skeleton of a thylacine (Tasmanian Tiger) was found in a cave at Lune River.

State Mini-Budget
A State Mini-Budget to save $8.5 million in 1985–86 was brought down by Premier Gray. The cuts were mainly aimed at the State Public Service.

'Abel Tasman' Promotion Scrapped
State Cabinet scrapped the controversial promotional cruise by the 'Abel Tasman' because of disruptions it would cause to the Bass Strait ferry service.

17 E.Z. to Modernise Plant
The Electrolytic Zinc company announced that it will spend $80 million modernising its Risdon plant to increase productivity.

19 Salmon Die
10 000 Atlantic Salmon died at the Department of Sea Fisheries Laboratories in Taroona. Two Tanks, in which the salmon were growing were drained of water.

Insurance Frauds
ALP State Opposition called for an inquiry into alleged frauds with insurance claims involving the Tasmanian Government Insurance Office.

26 Stewards Sacked
The State Government sacked two blacklisted stewards from the 'Abel Tasman' for the second time within a week.

28 HEC West Coast Workforce Cuts
The HEC announced that it will cut its West Coast workforce by 340 over the next 12 months on completion of the 192 megawatt Lower Pieman power scheme.

30 Tamar Pub Closes
One of Launceston's original waterfront pubs, The Tamar, opened since 1838, closed its doors for the last time.



JUNE STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	9.5
Retail Sales ($m)	105.7
Value of building approvals ($m)	56.4
Consumer Price Index (% increase June qtr)	2.3
Tasmania's Estimated Resident Population	442 100

JULY

5 Radio Telescope
The University of Tasmania appealed to the Planning Appeals Board against the Clarence Council's decision to refuse the installation of a radio-telescope on the University's farm at Richmond.

8 Car Repairs Slammed
The State Labor Opposition Spokesman on legal matters, Mr Peter Patmore, claimed that some sections of the vehicle repair industry were encouraging shoddy and dangerous workmanship. He asked that the State Government regulate Tasmania's motor vehicle repair industry to counter unscrupulous dealings by insurance assessors and repairers.

9 Police Commissioner Black Bans ABC
The Commissioner of Police, Mr Max Robinson, black banned the ABC from any police co-operation. The ban followed a report by the 'National' on what it claimed to be fraudulent practices involving the police and the tow truck and vehicle repair industry.

Repatriation Hospital
The Federal Government announced that it will hand over Hobart's Repatriation Hospital to the State after it had been substantially upgraded.

11 Tertiary Fee Proposal Condemned
A Federal Government proposal to introduce fees for tertiary education was condemned by the Vice-Chancellor of the University of Tasmania.

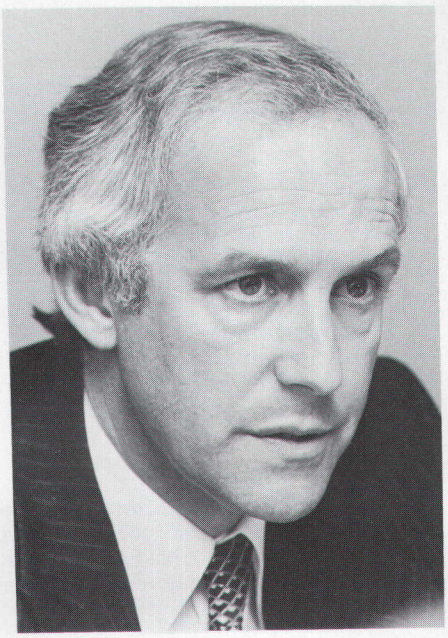
New ASIO Head
A Tasmanian-born aeronautical engineer, Mr Alan Wrigley, was appointed Head of ASIO.

JULY STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	8.5
Retail Sales ($m)	109.4
Value of building approvals ($m)	33.8

15 Queenstown Warden Resigns
Queenstown's Warden, Mr Bruce Dilger, resigned on principle after Council refused to change the name of the new Municipality, which will be amalgamated with Gormanston Municipality, to Lyell. After his resignation, there was turmoil as no other Councillor would accept nomination as Warden. He reluctantly resumed as Warden on 22 July.

18 Lowe to Contest Legislative Council Seat
Former State Labor Premier, Mr Doug Lowe, announced he would quit the House of Assembly and contest the Legislative Council seat of Buckingham in May 1986.



23 AIDS
The Minister for Health, Mr John Cleary, confirmed that six people, including a school-age child, in Tasmania were found to have AIDS antibodies in their blood.

30 Public Service Unions Slam State Cuts
A meeting in Hobart of 1 000 State Public Servants unanimously rejected the Tasmanian Government's implementation of cuts to public sector employment.

AUGUST

1 Police Chief in News
Tasmania's Police Commissioner, Mr Max Robinson was criticised by the Ombudsman for his Department's refusal to allow the Animal Liberation group to hold a button day because they were considered to be a political lobby group.

Mr Robinson publicly supported controversial moves to introduce phone-tapping as a major strengthening of criminal intelligence gathering.

He also lifted his three-week black ban on the ABC after he was satisfied that there was no truth in 'kick-back' allegations made on the ABC's 'National'.

2 Allied Fisheries Raided
Federal and State Police raided homes and offices in Launceston as part of the National Crimes Authority's investigation into the Allied Fisheries group, one of the Country's largest fishing organisations.

6 Devonport's New Jet Service
Ansett Airlines announced new jet services through Devonport Airport. Ansett's wholly-owned subsidiary, Air New South Wales, would commence direct Fokker F28 flights to Melbourne and Sydney from 17 August.

11 Admiral's Cup
Australia finished fourth overall in the 1985 Admiral's Cup. Tasmania's 'Intrigue', the most successful of Australia's yachts, finished tenth overall on the individual boats' point score.

AUGUST STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	8.6
Retail Sales ($m)	110.6
Value of building approvals ($m)	28.8

12 Launceston's Telephones Collapse
The Central Launceston telephone system collapsed for the second time in four days, causing community condemnation of Telecom for the service it provides to the City.

Woodchip Draft Environmental Impact Study
A Federal report on the Tasmanian woodchip draft environmental impact study condemned the study as inadequate and called for more environmental conditions to be placed on the State's woodchip export licences.

13 105 Year Old's Birthday
One of Tasmania's oldest citizens, Mrs Lucie Harper, of Burnie, celebrated her 105th birthday.

15 Railway Plan
Premier Robin Gray described the Commonwealth railways plan for a $60 million funding over the next three years as a massive confidence trick as $53 million of this is the forecast losses.

19 Scallop Fishermen in Battle
Victorian and Tasmanian scallop fishermen disputed rights to rich scallop beds, recently found off Tasmania's north-east coast. A few days later the beds were closed indefinitely by the Federal Minister for Primary Industry, Mr John Kerin.

21 Federal Budget
Only three minor new civil works projects, worth $520 000 were approved for Tasmania in the Federal Budget.

Electrona Silicon Plant

August news highlighted the controversial development of a $34 million silicon metal plant at Electrona. The State Government and the Kingborough Council were on a collision course as the Kingborough Council voted to re-zone the area which forced the Government in 1986 to introduce legislation overriding the Council's decision. The future of the plant seemed unsure until May 1986.

SEPTEMBER

2 Boon Appointed Tasmanian Captain
Australian Test Batsman, David Boon was appointed Tasmanian cricket captain.

3 Bonney Announces Retirement
Mr Ray Bonney, Liberal, Braddon, announced that he would not stand for re-election.

4 Hodgman Withdraws from Deputy-Leadership
Mr Michael Hodgman, Federal Member for Denison, withdrew his nomination as deputy-leader of the Parliamentary Liberal Party.

Bad Petrol

Poor quality petrol in Tasmania caused not only discontent amongst motorists but three accidents as well. The petrol was originally destined for the American market and was of lower volatility than petrol normally sold during winter in Australia.

7 Tasmania Day Announced
The State Government declared that 24 November will be known as Tasmania Day.

SEPTEMBER STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	9.9
Retail Sales ($m)	106.6
Value of building approvals ($m)	22.4
Consumer Price Index (% increase Sept. qtr)	2.2
Estimated Resident Population	443 000

16 Derwent Park Abattoir Closes
Tasmania's largest meat exporter, Richardson's Meat Industries, closed its Derwent Park abattoir. However, most of the 75 meatworkers were transferred to the company's Bridgewater plant.

Launceston City Manager Resigns
Launceston City Manager, Mr Jim Yaxley, resigned just days before the new city-elect, with Mr Don Wing as Mayor, took office.

17 Tasmanians Lose Portfolios
Senator Peter Rae and Mr Michael Hodgman were dropped from Mr Howard's Opposition front-bench. Senator Brian Archer became the Opposition's new spokesman for science and matters pertaining to the Special Minister of State.

Launceston's Big Bill
The Launceston City Council faced a million dollar plus bill for severance pay after the amalgamation of some northern municipalities.

18 State Budget
The State Budget gave pay-roll tax relief, assistance to some farmers and promised 2 000 more jobs.

Australian Football Finals

TANFL — Glenorchy defeated Clarence

NTFA — Launceston defeated North Launceston

NWFU — Penguin defeated Smithton

25 Statewide Football
The anxiously awaited Evers' Report into Tasmanian football recommended a 10-team, State-wide competition.

OCTOBER

2 Redundancy Payouts
State Government announced it was seeking legal advice on the redundancy payout to two former Council Clerks, alleged to total more than $600 000. (The State Government later backed down.) The total cost of the redundancy scheme, after the amalgamation of St Leonards and Lilydale Municipalities with the City of Launceston, was in excess of $4 million.

Comalco Aluminium Slump
The Comalco aluminium smelter at Bell Bay announced that it would cut its workforce by 130 over the next twelve months to enable it to remain competitive in a depressed world aluminium market.

4 Police Upset at ABC
The Tasmanian Police Association claimed that allegations of police corruption on the ABC 'National' had been based on unsubstantiated, emotive, non-factual reporting and innuendo.

OBITUARY

Mr Arthur Ambrose, MBE, former Managing Director of the Ambroses retail chain died in Smithton at the age of 85.

OCTOBER STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	9.0
Retail Sales ($m)	118.4
Value of building approvals ($m)	32.8

18 Gianetta Ivey, Miss Tasmania
Gianetta Ivey, 22, of Devonport was crowned Miss Tasmania.



22 Robson in Strife
Mr Neil Robson, Bass Liberal, who had been questioned earlier in the month about a brief-case which had been sent from Switzerland in a diplomatic bag, found himself in the news again about allegations of producing a gun (a starting pistol) in the Premier's suite and pointing it at a journalist from the 'Examiner' newspaper.

23 Statewide Football Competition Surprise
The inclusion of East Launceston in the Statewide football Competition and not Launceston was a surprise to football followers.

29 Woodchip Export Licences
The Federal Minister for Arts, Heritage and Environment, Mr Barry Cohen, formally gave his advice on the renewal of export licences. In his proposal, the Tasmanian Woodchip industry may not have to pay export royalties to the Commonwealth, be locked out of some forest areas and be made more publicly accountable. The State Government and Industry leaders were critical of these moves.

30 Hodgman Seeks Endorsement
Mr Peter Hodgman, MLC, announced that he would be seeking Liberal endorsement to contest a House of Assembly seat in Franklin.

NOVEMBER

3 Rae to Contest State Election
Senator Peter Rae announced that he would resign from the Federal Parliament to contest Bass for the Liberal Party at the 1986 State Election.

OBITUARY

Mr Horace Strutt, one of Tasmania's most respected members of the racing fraternity, and past speaker of the Tasmanian House of Assembly died at the age of 81.

8 Woodchip Debate
The Australian Democrats sought to pressure the Federal Government into maintaining a hard line in the issuing of woodchip export licences. The Federal Government refused to strike a deal with the Democrats. Meanwhile in Hobart, hundreds of log hauliers mounted a massive protest at proposed restrictions on the State's timber resources. This protest coincided with a visit to Hobart by the Federal Minister for the Environment, Mr Barry Cohen.

14 Milk Dumped
200 000 litres of milk were emptied into paddocks as the result of a strike at United Milk Tasmania Ltd's East Devonport factory.

NOVEMBER STATISTICS—TASMANIA

Unemployment Rate (% of labour force)	8.7
Retail Sales ($m)	121.8
Value of building approvals ($m)	27.6

16 Haros Dumped
The State Liberal Party dumped Mr Gabriel Haros MHA, from its Denison team at the 1986 State Election. Mr Haros decided to stand as an independent Liberal.

24 Tasmania Day — Calvert Tasmanian of the Year
Mr Don Calvert, Skipper of Admiral's Cup contender 'Intrigue', was named Tasmanian of the Year.



26 Submarine Contracts
Tasmania seemed assured of winning a share of the $2.5 billion contract to build six new submarines for the Royal Australian Navy.

27 Doctors' Threat
Doctors in Tasmanian public hospitals threatened to resign unless the State Government exempted them from impending legislation which would bring them under the direct control of the Department of Health Services.

DECEMBER

1 LGH Staff Shortage
Extreme staff shortages at the Launceston General Hospital created stress for staff and patients. The shortages prevented the admission of patients scheduled for elective surgery.

7 Launceston Fire
Arsonists were believed to be responsible for a fire which gutted the historic Pilgrim Uniting Church hall in Launceston.



10 Storms in North East
Heavy rain was dumped over Tasmania, culminating in one of the wettest weeks ever recorded in the State. The North East was soaked, Pyengana was hit by the worst thunderstorms experienced in 100 years. Some farmers welcomed the rain although some minor flooding was reported.

DECEMBER STATISTICS—TASMANIA

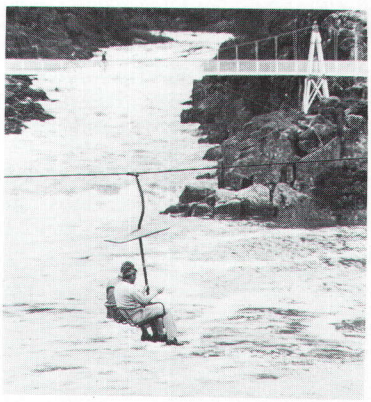
Unemployment Rate (% of labour force)	9.1
Retail Sales ($m)	161.3
Value of building approvals ($m)	20.1
Consumer Price Index (% increase, Dec. qtr)	2.0

11 Nut Chairlift
State Cabinet approved the construction of a chairlift on the Nut at Stanley.

13 New World Record Price for Wool
A Japanese buyer paid a record 17 500 cents/kilogram for a 90 kg bale of super-fine wool from the Kelvin Grove Stud at Nile.

14 Influenza Germ
Launceston doctors treated 178 children, believed to have come into contact with a deadly influenza germ which had calimed the life of a three-year-old girl.

17 First Qantas Flight
Qantas joined the Tasmania–New Zealand link with its first flight from Auckland to Hobart.



South Esk River in flood

YACHTING RESULTS

Sydney–Hobart: Sydney maxi-yacht, 'Apollo', took line honours with the NSW yacht, 'Sagacious', the winner on handicap. The provisional winner on handicap, 'Drake's Prayer', was penalised after protest because of rule breaches at the start of the race.

Melbourne–Hobart: The Victorian yacht, 'Flying Colours', took line honours with the Tasmanian yacht, 'Solandra', the handicap winner.

Melbourne–Hobart: The Tasmanian yacht, 'Adam's Apple', took line honours with the 10-metre, Victorian yacht, 'Savage', the winner on handicap.

1.11 REFERENCES

BARRETT, W. R. *History of Tasmania to the Death of Lieutenant-Governor Collins in 1810* (H. T. Whiting, Hobart, 1936)

BENNETT, S. & B. *Biographical Register of the Tasmanian Parliament* 1851–1960 (Australian National University Press, Canberra, 1980)

CLARK, C. I. *The Parliament of Tasmania, An Historical Sketch* (Government Printer, Hobart, 1947)

CLARK, J. *The Aboriginal People of Tasmania*, Tasmanian Museum and Art Gallery, Hobart, 1983

COULTMAN SMITH, B. *Tales of Old Tasmania* (Rigby, Adelaide, 1976)

FENTON, J. *A History of Tasmania, from its Discovery in 1642 to the Present Time* (J. Walch & Sons, Hobart 1884; reproduced by Melanie Publications, Hobart, 1978)

FINKEL, G. *Tasmania*, 1803–1900 (Thomas Nelson, Melbourne, 1976)

GIBLIN, R. W. *The Early History of Tasmania*, 1642–1804 (Methuen & Co., London, 1928)

GOODRICK, J. *Life in Old Van Diemens Land* (Rigby, Sydney, 1977)

GREEN, F. C. (ed.) *A Century of Responsible Government*, 1856–1956 (Government Printer, Hobart, 1956)

HARTWELL, R. M. *The Economic Development of Van Diemen's Land*, 1820–1850 (Melbourne University Press, 1954)

LEVY, M. C. I. *Governor George Arthur, A Colonial Benevolent Despot* (Georgian House, Melbourne, 1953)

ROBSON, L. I. *A History of Tasmania*, Vol 1. (Oxford University Press, Melbourne, 1983)

TASMANIAN GOVERNMENT, J. REYNOLDS (ed.) *The Discovery of Tasmania*, 1642, *Selections from Doctor J. E. Heeres' Translation of Tasman's Journal Aug–Dec* 1642, Tasmanian Tercentenary Celebrations publication (Government Printer, Hobart, 1942)

TAYLOR, H. G. *The Discovery of Tasmania* (Cat & Fiddle Press, Hobart, 1973)

TOWNSLEY, W. A. *The Struggle for Self-Government in Tasmania*, 1942–1856 (Government Printer, Hobart, 1951)

TRIEBEL, L. A. and BATT, J. C. *The French Exploration of Australia, With Special Reference to Tasmania* (Government Printer, Hobart, 1957)

TURNBULL, C. *Black War, The Extermination of the Tasmanian Aborigines* (Landsdowne Press, Melbourne, 1948)

WALKER, J. B. *Early Tasmania, Papers Read Before the Royal Society of Tasmanian During the Years 1888 to 1899* (Government Printer, Hobart, 1950)

WEST, J. *The History of Tasmania* Vols 1 and 2 (Henry Dowling, Launceston, 1852; reproduced by the Libraries Board of South Australia, 1966)

Chapter 2

PHYSICAL ENVIRONMENT

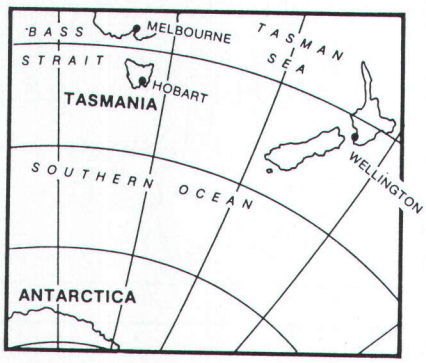
		Page No.
2.1	**Location and Area**	29
2.2	**Climate**	30
2.2.1	Winds	30
2.2.2	Temperature	30
2.2.3	Rainfall	31
2.2.4	Snow, Hail and Thunderstorms	31
2.2.5	Floods	32
2.2.6	Hobart's Climate	32
2.2.7	Seasonal Temperatures 1985	34
2.2.8	Monthly Weather Review 1985	34
2.3	**Physiography**	35
2.3.1	Mountains, Lakes and Rivers	35
2.3.2	Physiographic Regions	35
2.4	**Soils**	36
2.5	**Vegetation**	37
2.5.1	Temperate Rain Forest	37
2.5.2	Mixed Forest	38
2.5.3	Subalpine Vegetation	38
2.5.4	Button-Grass Plains	39
2.5.5	Sclerophyll Forests	39
2.5.6	Coastal Heath Vegetation	40
2.5.7	Tasmanian Fungi	40
2.6	**Environmental Management and Control**	40
2.6.1	National Parks and Reserves	42
2.6.2	Pollution Control	44
2.7	**References**	45
	Appendix	46
	Annual Rainfall	46
	National Parks	46

Chapter 2

PHYSICAL ENVIRONMENT

2.1 LOCATION AND AREA

The State of Tasmania is a group of islands lying south of the south-east corner of the Australian mainland. Roughly shield-shaped with the greatest breadth in the north, the Tasmanian mainland extends from 40° 38′ to 43° 39′ south latitude and from 144° 36′ to 148° 23′ east longitude. The coastline is bounded by the Southern Ocean on the south and west and the Tasman Sea on the east, while the approximately 240 kilometres wide Bass Strait separates the island from the Australian mainland. Macquarie Island, a part of the State, is situated at 54° 38′ south latitude, 158° 53′ east longitude and is bounded by the Southern Ocean.



The area of the whole State, including the lesser islands, is 68 331 square kilometres or about 0.9 per cent of the total area of Australia (7 686 900 square kilometres); it is just under one-third the size of Victoria, the smallest mainland State, and is less than half the size of England and Wales.

Mainland Australia, extending north of the Tropic of Capricorn, and with much of its area in the zone of the sub-tropical anti-cyclones, is basically a warm, dry continent. Tasmania is in the temperate zone and practically the whole island is well watered with no marked seasonal concentration; there are no deserts or drought areas as found extensively on the adjacent mainland. Being south of latitude 40°, it is on the edge of the wind belt commonly known as the 'Roaring Forties' and, with South America the nearest land mass to the west, Tasmania's weather is subject at times to strong winds and heavy rain about the south and west coastal areas. Its insular position provides protection against temperature extremes — the variation between summer and winter mean temperatures in coastal towns rarely exceeds 8° Celsius.

Apart from the Great Dividing Range in the east, continental Australia is predominantly a land of low plateaux and plains with little relief. In contrast, Tasmania could legitimately be called the island of mountains, since it has the largest proportion of high country to its total

2.1 Area of Islands

Island	*Area (square kilometres)*
Bruny	362
King	1 099
Flinders	1 374
Prime Seal	10
Badger	10
Vansittart	6
Cape Barren	445
Clarke	113
Three Hummock	70
Hunter	74
Robbins	101
Maria	101
Schouten	34
Macquarie	123
Total islands	3 922
Mainland Tasmania	64 409
Total Tasmania	68 331

area, compared with the other States. The distinctive feature of the island is not so much the height of the mountains — few exceed 1 500 metres — but rather the frequency with which they occur making Tasmania 'probably the most thoroughly mountainous island on the globe'.

2.2 CLIMATE

(The following section was prepared by the Bureau of Meteorology)

Since Tasmania lies between 40° and 43½° south of the Equator and is an island with no point more than 115 kilometres from the sea, its climate is classified as temperate maritime. On the coast the daily temperature range averages about 8° Celsius, rising to about 12° Celsius further inland, indicating a slight continental effect.

The combination of mountainous terrain in the western half of the State and prevailing westerly winds produce a marked west-east variation of climate, and especially of rainfall.

Summers are mild and characterised by greatly lengthened days. The sun reaches a maximum elevation of 70–73° in mid-summer, giving 15 hours of daylight in the north and 15½ hours in the south. In mid-winter, the sun's elevation does not exceed 20–23°, and the shortest day consists of 9¼ hours of daylight in the north, falling to slightly under nine hours in the south.

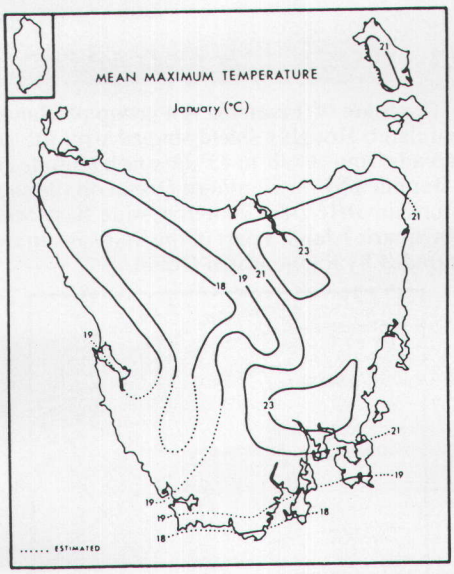
In winter, westerly winds reach their greatest strength and persistence, causing a distinct maximum in rainfall distribution in the west and north-west. In the east and south-east, rainfall is more evenly distributed throughout the year. In comparison with those areas of Europe and North America which are at similar latitudes Tasmania enjoys a very temperate climate. This is due to the stabilizing effect of surrounding oceans whose temperatures change only 3–5° throughout the year. The higher proportion of ocean to land area confers a similar benefit on the Southern Hemisphere as a whole.

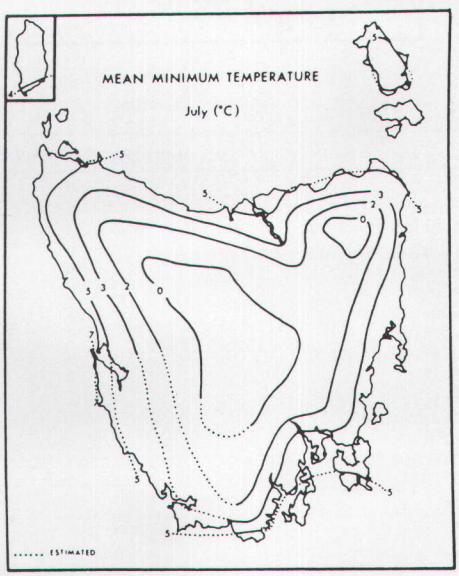
2.2.1 Winds

The prevailing winds over most of the Island are north-west to south-west, with greatest strength and persistence during late winter. Speed and direction vary with the eastward passage of high and low pressure systems. In the summer months, when westerlies are weak, afternoon sea-breezes become the predominant wind in coastal areas. Occasional periods of north-east to south-east winds occur. The highest average wind speeds are associated with extensive deep depressions over ocean areas south of Tasmania.

2.2.2 Temperature

Tasmania only occasionally experiences the extremes of temperature common to the other States. High temperatures recorded in the east and south-east of Tasmania generally occur on the last day of a warm spell during which a dry air mass of mainland origin is advected over the State from a direction between north and north-west. Some cooling in the lower air layers over the waters of Bass Strait prevents the northern coast from reaching the higher temperatures that are experienced in the south under these conditions. The highest temperatures ever recorded in Tasmania are 40.8°C at Bushy Park in December 1945 and at Hobart in January 1976. The lowest temperature recorded was -13.0°C at Shannon, Butlers Gorge and Tarraleah in June 1983.





The recorded extremes of temperature for Hobart are 40.8°C in January 1976 and -2.8°C in June 1972 and July 1981. Readings above 38°C or below -1°C are rare, the mean maximum temperature in summer being 21°C and the mean minimum in winter, 4.8°C.

The average number of hours of sunshine a year ranges from about 2 500 hours in the northern Midlands to less than 1 750 hours on the West Coast and western highlands, this area having the least amount of sunshine in Australia. Hobart averages 2 100 hours per year and Launceston around 2 400.

In January, daily averages of sunshine range from nine hours per day between the Midlands and Launceston to six hours per day on the West and South Coasts. In mid-winter, average daily sunshine is down to a maximum of three hours on the East Coast and to considerably less on the West Coast and highlands.

2.2.3 Rainfall

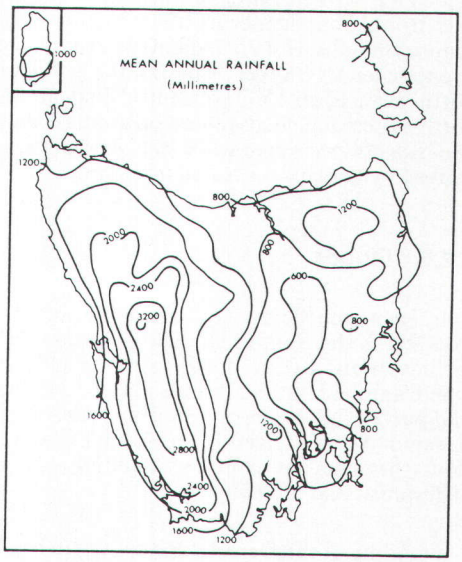
As Tasmania's position is on the northern edge of the 'Roaring Forties' (a westerly air-stream), its exposure to this stream and the mountainous nature of the terrain are the controlling influences on the amount, distribution and reliability of the State's rainfall.

In the west, average annual rainfall ranges from about 1 500 mm on the coast to 3 500 mm at Lake Margaret; in the north-east, from 500 mm on the coast to 1 300 on the highlands; while rainfall in the north-west ranges from 1 000 mm near the coast to 1 600 mm in the higher inland areas.

Extreme three to five-day rainfalls occur most often on the West Coast in late June when the westerlies are increasing in strength and persistence and the sea temperature is well above the land temperature. In the north, short periods of extreme precipitation occur when wind flow is sustained for up to two days from the north-east, usually from late autumn to spring. The high moisture content of such streams from over the relatively warm waters of the Tasman Sea results in heavier, if less prolonged, rainfall than is produced in the westerly streams.

There is a strong gradation in rainfall from west to east, because of topography, with a distinct rain shadow east of the Central Plateau. Parts of the Midlands average less than 500 mm per year. Totals in the east and south-east are higher (over 800 mm on exposed slopes).

Rainfall is least reliable in the east, south-east, Midlands and Derwent Valley. Highest rainfall in these areas tends to occur in autumn and spring, under the influence of small cyclonic depressions off the East Coast.



2.2 Rainfall in Districts

District	*1983*	*1984*	*1985*	*Average(a)*
Northern	762	944	913	994
King Island	863	707	784	933
Central Plateau	836	1 154	1 097	989
Midlands	423	525	625	550
Derwent Valley	674	805	662	687
South-East	876	848	934	759
East Coast	747	818	823	817
West Coast	2 026	2 507	2 014	2 332
Flinders Island	688	635	893	740

(a) Long-term annual average based on 73 years of record.

2.2.4 Snow, Hail and Thunderstorms

Snow and hail can be experienced over the highlands at any time of the year. Heaviest snowfalls occur, as a rule, in late winter and spring, and less frequently in June and July. Extensive snow below 150 metres occurs, on the average, less than once every two years, associated with an unusually vigorous outbreak of cold air from Antarctic regions. There is no permanent snowline, but patches of snow often remain on the highest peaks until December.

Hail is most likely in spring, though possible in any month. Hail storms are a big risk to fruit

crops in the Huon Valley and on the Tasman Peninsula, and sometimes cause extensive damage.

Thunderstorms are most common in the west and about the North Coast and are usually associated with the lifting of warm moist air by a cold front. Thunderstorms occur mainly in the summer months. Hobart and Launceston average five to seven storms per year, and the north and north-west, 10 to 15. The Central Plateau and north-eastern highlands report, on average, about five storms per year, while the Midlands, as gauged by Oatlands, has less than three.

2.2.5 Floods

In Tasmania the river system most affected by flooding is the South Esk. The Esk catchment includes most of the north-eastern highlands, where annual rainfall averages about 1 300 mm, and part of the Western Tiers where run-off can be rapid. As many rivers in the South Esk system flow through flat country, flooding can be widespread and disruptive.

Flooding of the Derwent River system can be extensive but is less frequent than in the South Esk. The most severe flood on record in the Derwent occurred in April 1960 with the peak discharge flow recorded as 3 400 cumecs (cubic metres per second) at Macquarie Plains. However, it is most unlikely that flooding of this severity will again occur on the Derwent due to the completion of the four dams across the River since 1960 by the Hydro-Electric Commission.

Flooding of rivers in the west and south of the State can be of greater frequency than in the Derwent and Esk systems but because of mountainous terrain and lack of population these pass mostly unnoticed. Similarly, the short, fast-flowing rivers of the East Coast flood and fall rapidly, but can cause damage and disruption of road systems.

In the north and north-west of Tasmania many rivers have their catchments along the northern edge of the Central Plateau and can flood quickly.

Central Hobart was centimetres from flood emergency

Central Hobart was 10 centimetres from emergency evacuation early on the eighteenth of December 1985 as the worst floods in 25 years hit the south-east of the State.

At 5 am the Hobart Rivulet, measured at the twin culverts at the Campbell Street intersection, rose to 1.2 metres — the highest level for more than 15 years.

Evacuations in the city centre under the central business district flood action plan start when the water level at the culverts reaches 1.3 metres.

The Hobart City Engineer, Mr Graeme Howard, was reported as saying that the major city rivulets had coped well with the deluge but there had been widespread flooding.

2.2.6 Hobart's Climate

Hobart is not the wettest Australian capital city; in fact it has the lowest mean annual rainfall of all capitals except Adelaide. But it is colder on average.

2.3 Capital Cities Climatic Data

	Sydney	*Melbourne*	*Brisbane*	*Perth*	*Adelaide*	*Hobart*	*Darwin*	*Canberra*
Temperature (°C) —								
Mean daily maximum	21.4	19.9	25.4	23.2	22.4	**16.8**	32.3	19.3
Mean daily minimum	13.6	9.9	15.5	13.1	11.8	**8.2**	23.2	6.2
Extreme maximum	45.3	45.6	43.2	44.7	47.6	**40.8**	40.5	42.2
Extreme minimum	2.1	-2.8	2.3	1.2	0.0	**-2.8**	10.4	-10.0
Mean daily hours of sunshine	6.7	5.7	7.5	7.9	6.9	**5.8**	8.5	7.2
Rainfall —								
Mean annual (mm)	1 215	661	1 157	879	531	**626**	1 536	639
Mean annual days of rain	148	143	123	120	120	**160**	97	110
Wind — Average (km/hr)	11.6	12.3	10.8	15.6	12.5	**11.7**	9.2	5.8

2.4 Hobart Climatic Data, 1985

Month	Shade temperature				Mean daily hours of sunshine (a)	Rainfall	
	Mean maxima (a)	Mean minima (a)	Extremes (b)			1985	Long-term average (a)
			Maximum	Minimum			
	°C	°C	°C	°C	hours	mm	mm
January	21.5	11.7	40.8	4.5	7.9	61	47
February	21.6	11.9	40.2	3.4	7.0	38	40
March	20.0	10.7	37.3	1.8	6.3	39	48
April	17.1	8.8	30.6	0.6	5.1	65	53
May	14.3	6.8	25.5	-1.6	4.2	36	49
June	11.8	5.1	20.6	-2.8	3.9	44	57
July	11.5	4.4	21.0	-2.8	4.3	61	53
August	12.9	5.1	24.5	-1.8	5.0	22	52
September	14.9	6.3	28.2	-0.6	5.8	38	53
October	16.9	7.6	33.4	0.0	6.3	58	63
November	18.5	9.1	36.8	1.6	7.0	47	56
December	20.2	10.6	40.7	3.3	7.3	206	57
Total for year	16.2	8.2	40.8	-2.8	5.8	716	626

(a) Long-term average. *(b)* Specific extreme temperatures since records kept.

Temperatures: Mean maximum temperature exceeds 21°C in January and February. On average there are two or three days per year with maximum temperatures greater than 32°C. Minimum temperatures below -1°C are rare.

Rainfall: There is a strong gradient of rainfall to the immediate west of Hobart caused by the bulk of Mt Wellington. On the south-eastern slopes of the mountain the annual rainfall reaches 1 400 mm (at The Springs and The Gap) while at Fern Tree the annual average is 1 140 mm. The rainfall decreases to about 600 mm in the city area, the annual average being 626 mm at the Regional Office of the Bureau of Meteorology. Some eastern shore suburbs receive as little as 500 mm of rain per annum.

Monthly totals are fairly uniform. The wettest 12 months on record at the Bureau's Hobart Office yielded 1 104 mm (to December 1916) and the driest, 320 mm (to November 1943).



Fog: Fogs occur in the city about six times per year, in the cooler months, but are more frequent over and near the Derwent River, down which they are often carried on a light north-west wind. Fog frequency is far less than that for either Launceston or Melbourne.

Wind: The main wind direction is north-west, induced by the orientation of the Derwent Valley. Next in importance is the sea-breeze (from south or south-east) during summer months. The strongest wind gust experienced in Hobart was 150 km/hr recorded during a storm in September 1965.

Snow and Hail: Snow below 300 metres occurs, on the average, less than once per year. Falls lying in the centre of the city, almost at sea level, have occasionally been recorded. Snow generally lies on Mt Wellington during winter and early spring months, but it is rare between November and March. Hail occurs about four times a year, mainly between September and November.

Frost: The average annual frequency of days of frost is 28, mostly from June to August. Cold air drainage is found in the hilly suburbs and frosts are common on the valley floors.

Sunshine and Cloud: No marked seasonal or diurnal variation of cloud amount occurs. However there is a clear cut seasonal variation in monthly average hours of sunshine with variations of 235 hours in January to 112 hours in June.

2.2.7 Seasonal Temperatures

2.5 Temperatures at Selected Stations, Tasmania, 1985

Station	*Summer (Dec–Feb)*		*Autumn (Mar–May)*		*Winter (June–Aug)*		*Spring (Sept–Nov)*	
	Mean maximum	*Mean minimum*	*Mean maximum*	*Mean minimum*	*Mean maximum*	*Mean minimum*	*Mean maximum*	*Mean minimum*
Hobart	19.6	10.9	18.0	9.7	12.5	4.7	16.4	8.6
Launceston Airport	21.4	8.5	18.4	8.0	11.1	2.5	16.6	6.2
Devonport	19.8	10.3	18.6	9.7	12.3	3.3	16.7	7.5
St Helens	20.7	10.6	19.1	9.5	14.4	2.4	17.5	8.0
Queenstown	18.5	6.4	18.6	6.3	11.9	2.8	17.0	4.6

2.2.8 Monthly Weather Review 1985

January

With average monthly minimum and maximum temperatures below normal, January was relatively cool and wet; rainfall was well above normal in the south-west although below normal elsewhere.

February

In most districts rainfall was well below average; temperatures too were below normal. Combined with January and December, the summer was one of the coldest for the State since 1964–65.

March

East to north-easterly winds produced generally above average temperatures throughout the State. Rainfall was above average in eastern and central districts but well below normal on the West Coast.

April

Easterly winds again produced above normal temperatures and above average rainfall on the East Coast.

May

North to north-westerly airstreams again produced above normal temperatures. Rainfall in the north of the State was well above average but was below normal in most other districts.

June

Rainfall was close to normal except in eastern and central districts which had about half their usual falls. Temperatures were cool with most of the State below normal.

July

Most of the north, central and eastern parts of the State received less rain than usual, while the south-west received above average falls. Early in the month temperatures were above average and slightly below normal thereafter. High winds and heavy rains occurred at the end of the month.

August

Temperatures overall were slightly above average. Most of Tasmania had rainfall totals below average due to a general lack of strong frontal activity. North-westerlies dominated the weather.

September

Lack of rain resulted in some areas recording their lowest September rainfall totals ever. Above average maximum temperatures occurred except in the south-east. Minimum temperatures were also above average apart from the north-west.

October

Maximum and minimum temperatures were generally above average. Some parts of the State received above average rainfall although much of Tasmania had another drier than average month.

November

Less than average westerly weather affected the State. Rainfall in the south and west was generally below average.

December

Heavy rainfalls persisted throughout the State causing some flooding in the south. Hobart recorded its wettest December since 1916.

2.3 PHYSIOGRAPHY

Tasmania, a mere 296 kilometres from north to south and 315 kilometres from east to west, has a wide variety of mountains, plateaux and plains, of rivers, lakes, and tarns, of forest, moorland and grassland, of towns, farms and uninhabited (and virtually unexplored) country. The temperate maritime climate partly explains Tasmania being called the most English of all States but other factors operate to heighten the comparison — the pattern of agricultural settlement with orchards, hedges and hopfields; the lake country; the early freestone architecture still common in the east and south-east and the roadsides and villages dotted with oaks, elms and poplars.

2.3.1 Mountains, Lakes and Rivers

With six mountains exceeding 1 500 metres, 28 above 1 220 and a substantial part of the Central Plateau above 900 metres, Tasmania is truely an island of mountains. The tallest is Mt Ossa (1 617 metres) located with a group of mountains, including Cradle Mountain, to the north-east of Queenstown and west of the Highland Lake Country on the Central Plateau containing Lake St Clair, Australia's deepest natural freshwater lake.

2.6 Mountains and Lakes

Mountains	*Height (metres)*
Mt Ossa	1 617
Legges Tor	1 573
Barn Bluff	1 559
Mt Pelion West	1 554
Cradle Mountain	1 545
Stacks Bluff	1 527
Mt Gould	1 491
Mt Jerusalem	1 491
Mt Olympus	1 447
Frenchmans Cap	1 443
Mt Ironstone	1 443
Lakes	*Area (square kilometres)*
Lake Gordon *(a)*	272
Lake Pedder *(b)*	241
Great Lake *(c)*	170
Arthurs Lake *(c)*	64
Lake Sorell	52
Lake King William *(a)*	41
Lake Echo *(c)*	41
Lake Mackintosh *(a)*	29
Lake St Clair	28
Lake Pieman *(a)*	22
Lake Rowallan *(a)*	9
Lake Roseberry *(a)*	7
Lake Barrington *(a)*	7
Lake Cerhena *(a)*	4
Lake Murchison *(a)*	4

(a) Man-made.
(b) Man-made — inundated the much smaller natural Lake Pedder.
(c) Natural lake enlarged by dam(s).

Although the rivers are short, Tasmania is virtually criss-crossed by a network of rivers and lake systems. In the south, the Derwent flows from the Central Highlands past Hobart, providing one of the world's best harbours, to the sea at Storm Bay. The Huon River takes the waters of the south-west from the Gordon and Franklin Rivers at Lake Pedder. The State's longest river is the South Esk in the north flowing from the north-east to join the North Esk at Launceston to create the Tamar. Other rivers include the Mersey, Forth and Leven flowing to the North Coast and the Pieman and Arthur rivers on the West Coast.

2.7 Rivers

Rivers	*Length (kilometres)*
South Esk	201
Gordon	185
Derwent	182
Huon	170
Mersey	146
Franklin	118
Arthur	113
Pieman	100
North Esk	82

2.3.2 Physiographic Regions

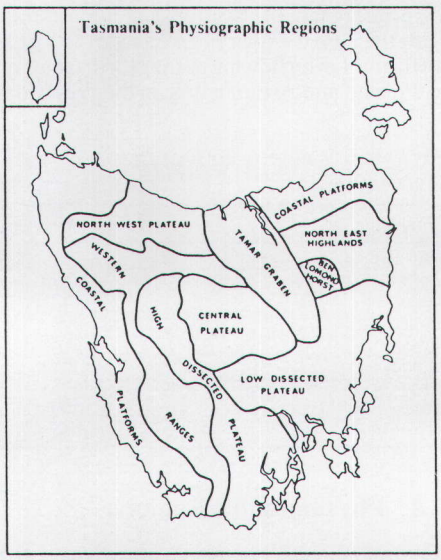
Central Plateau: The main feature is a relatively undissected, dolerite-capped plateau sloping generally south-eastward from an average level of 1 065 metres in the north to 610 metres in the south, and drained almost wholly by the Derwent system. The northern and eastern boundaries of the Plateau are the Great Western Tiers (paradoxically named since they lie in the central north of the island). This is known as the 'lake country' of the island and is one of the chief sources of hydro-electric power.

High Dissected Plateau: West of Lake St Clair, dolerite caps steeply-tilted sediments and the plateau is much dissected; it comprises a series of peaks and broken ridges. The coastlands in the extreme south of the region are rugged but in the D'Entrecasteaux Channel and Huon River areas, narrow coastal belts have been devoted to specialised agriculture.

Western Ranges: The high dissected plateau is bounded by a series of mountain ranges running parallel to the West Coast and in this region are located the State's principal mines. The south of the region is virtually uninhabited.

Western Coastal Platforms: Throughout almost the entire length of the West Coast, an uplifted and much dissected peneplain slopes westward from about 275 metres altitude, ending abruptly in cliffs more than 30 metres high. In the

south of this region, superhumid button grass plains predominate, and the area is uninhabited. On the coastal plain south of the Arthur River however, dairy cattle are wintered on agistment runs, while north of the river dairying begins to appear and swamps have been drained to allow farming.



The above regions derive from a classification by J.L. Davies, M.A., PhD., University of Tasmania

North-West Plateau: North of the Western Ranges lies a plateau averaging nearly 610 metres altitude which is important mainly for forestry; the coastlands derive mainly from basalt, giving rise to intensive mixed farming based on dairying, potatoes and crops for canning and freezing, such as peas and beans.

Tamar Graben: This graben (rift valley) is the largest plain and the leading agricultural and pastoral district in the State; it ends in the drowned inlets of the Tamar and Mersey estuaries and of Port Sorell, in the north.

North-East Coastal Platforms: This region consists of undulating lowland but the soils are acidic and the land is used only for grazing.

North-East Highlands and Ben Lomond Horst: This region comprises mostly uplifted remnants of old fold mountains dominated by the 1 525 metre dolerite-capped plateau horst of Ben Lomond, an outlier of the Central Plateau. Here agriculture is largely confined to small basalt-derived basins. Some minerals are worked.

Low Dissected Plateau: In the south-east lies a low dissected dolerite plateau averaging perhaps 365 metres and used mainly for grazing. The northern coastlands of this region are narrow and also devoted to sheep, but the southern coastland is important for its specialised agriculture. At the extreme south of the region is the drowned estuary of the Derwent and the Tasman and Forestier Peninsulas.

2.4 SOILS

(The following article by K.D. Nicolls and G.M. Dimmock is taken from 'Atlas of Tasmania', published by the Lands and Surveys Department, Hobart in 1965.)

Nearly all Tasmanian soils are moderately to strongly leached, because of the generally humid climate. Most are acid, at least in the surface horizons, some very strongly so. Podzolic soils of various kinds are the most extensive, while on basalt in the north of the State, the strongly leached krasnozems are widespread. Moderately leached soils are almost restricted to basic igneous rocks, in the relatively dry valleys of the centre and south-east; in some of these small amounts of free carbonate produced in rock weathering remain in the deeper horizons. Elsewhere, low to moderate leaching is associated with youth of the parent materials, as in the calcareous coastal sands, but this is only in restricted localities.

In keeping with relatively high rainfall and low temperatures, Tasmanian soils tend to be high in organic matter. In a survey of 264 samples of various soils throughout the State, the median value for organic matter in the surface four inches was close to nine per cent.

Restricted drainage, in association with button grass, *Mesomelaena sphaerocephalus*, produces moor podzol peats at low elevations on the valley floors of the south-west. Together with low temperature on the Central and smaller plateaux, it is responsible for the development of the moor peats. Restricted drainage also accounts for the acid swamp soils and fen soils in the north-west and on King and Flinders Islands, and for the organic soils occupying narrow strips of alluvium along the flood plains of rivers in the eastern half of the State. Nevertheless, Tasmanian peats are usually shallow. The depth of soil with organic matter content exceeding 20 per cent is usually no more than 12 inches, and peats more than 24 inches deep are rare.

Within any one climatic zone the pattern of parent material largely determines the distribution of soils, the soil boundaries closely following rock boundaries. This is so particularly with the basic igneous rocks, basalt and dolerite, the soils of which are distinct from those on more siliceous parent materials. Consequently where soil surveys have not been made, the geological map is the best indicator of the likely soil pattern.

Examples of the influence of age of the soil surface upon soil development may be seen in river terraces and in successive drifts of wind-blown sand along some parts of west-facing coastlines. In the Midlands Graben the highest (oldest) river terraces have lateritic podzolic soils, lower terraces have meadow podzolic and solodized-solonetz soils and the present flood plains have organic alluvial soils. On the coastal sand drifts, the oldest surfaces farthest inland have strongly leached groundwater podzols and podzols, the intermediate dunes have less leached terra rossa soils, and the young drifts near the beaches have the slightly leached calcareous coastal sands.

Fertility

Like other Australian soils, by world standards Tasmanian soils are not fertile. But on the average, Tasmania is well watered, and its soils can be made highly productive if adequately fertilised. The need for nitrogen has been met mainly by growing legumes, but there is an increasing place for nitrogen fertilisers with special crops and high producing pastures such as those used in dairying. Though in areas of intensive farming, superphosphate has been in continuous use for at least three to four decades, phosphorus is still generally required. The majority of agricultural soils in Tasmania apparently have low reserves of usable potassium, and as greater demands are put upon them, the need for applied potassium will increase. Already lack of potassium limits pasture production on sandy soils and those exploited by long cropping, particularly the lateritic podzolic soils and some of the meadow podzolics. Molybdenum is the most widely required of the trace elements, especially in the lateritic podzolic soils, the krasnozems, and many of the yellow podzolic. Copper is commonly required on the groundwater podzols, podzols and calcareous coastal sands, for stock health as well as for pasture production. Soils of these last three groups, together with some krasnozems and yellow podzolic soils, commonly fail to supply enough cobalt to stock grazing on them, and cobalt supplementation by pasture topdressing or by other means is necessary.

2.5 VEGETATION

(This section is based on an article contributed by Dr Winifred M. Curtis to the 1969 Tasmanian Year Book.)

Tasmania's rugged topography and diversity of soil and climate result in a wide range of habitats for plants. There are some 1 200 species of native flowering plants of which about 200 are *endemic*, i.e. peculiar to the State. This flora, while closely related to that of the Australian mainland, has also a very strong affinity with the floras of other southern lands, namely New Zealand and southern South America.

Except on the mountain summits, the climate of Tasmania is favourable for the development of forest, both temperate rain forest in areas having an annual rainfall of about 1 500mm or more, and sclerophyll (eucalypt) forest in the drier parts. There are, however, considerable areas of sedge-moor and heath associated with particular types of soils; these are sometimes increased by the effects of repeated fires. Conditions for the growth of plants often change abruptly, particularly in mountainous country dissected by gullies, and juxtaposition of forest, sedge-moor and subalpine communities produces a mosaic-like pattern.

2.5.1 Temperate Rain Forest

Myrtle and Sassafras

In areas of high rainfall and suitable soils, temperate rain forests are found from sea level to an altitude of about 1 000 metres, and corridors extend into many of the deep sheltered gullies in eucalypt forests. The characteristic trees, myrtle (*Nothofagus cunninghamii*) and sassafras (*Atherosperma moschatum*), cast a deep shade and undergrowth is often reduced to a surface cover of liverworts, mosses and lichens with scattered areas of ferns. Corridor forests at low altitudes develop as fern gullies in which other species of trees appear. Often musk (*Olearia argophylla*), with sassafras, are the dominant trees forming a canopy above the tree ferns.

'Pines' and Blackwood

While myrtle and sassafras are characteristic and widespread throughout Tasmania's rain forests, other species are locally abundant. King Billy pine (*Athrotaxis selaginoides*) and pencil pine (*A. cupressoides*) are trees of 15 to 30 metres in height. They may be associated with myrtle or they may form pure stands on slopes of the central plateau in high-rainfall areas, e.g. at Cradle Valley. Huon pine (*Dacrydium franklinii*),

a fine timber tree characteristic of the banks of rivers near the west coast and of lakes on the central plateau, is no longer plentiful. Blackwood (*Acacia melanoxylon*) reaches its greatest development in the swampy soils of the north-west.

Celery-top and Leatherwood

Where soils are acid and poor in mineral nutriments and the canopy of the rainforest becomes broken, other trees and also tall shrubs appear. Celery-top (*Phyllocladus aspleniifolius*) is widespread and leatherwood (*Eucryphia lucida*) locally abundant. The latter sometimes grows to a height of 30 metres although more usually 7–12 metres. In late summer, the flowers make a spectacular display; they are white, about 3.5 cm in diameter and resemble wild roses. There are some six species of leatherwood, two endemic in Tasmania, one in the Australian mainland and three in Chile.

'Laurels', Waratahs and Heaths

The tall shrubs of these forests include a number of endemics, many characterised by showy flowers or by bright fleshy fruits. Native laurel (*Anopterus glandulosus*) is a handsome shrub bearing large terminal racemes of white flowers. The waratah family (*Proteaccae*) and heath family (*Epacridaceae*) are well represented. From the latter family, two endemic species are of particular interest. Pandani or giant grass tree (*Richea pandanifolia*) has leaves one to two metres long, parallel-veined, hard, rigid and drooping, borne at the summit of a trunk which may be six to nine metres high. Climbing heath (*Prionotes cerinthoides*) is a climber not infrequent on the trunks of myrtle where it may reach a height of 12 metres above the ground. It forms pendant sprays of small evergreen leaves and crimson bell-like flowers. In the character of both leaf and flower, climbing heath differs somewhat from other representatives of the heath family but it resembles another monotype genus (*Lebetanthus*) which is endemic in southern South America.

Impenetrable Scrub

Locally in poor acid soils where the water table is at or very near the surface an almost impenetrable scrub develops, the density of which is notorious. About five species are mainly concerned. Woolly teatree (*Leptospermum lanigerum*) forms dense stands of trees having slender, very tough trunks up to 15 metres high. The sedges appropriately called 'cutting grass', grow in clumps which are often more than two metres in height and breadth. *Bauera rubioides* (family Cunoniaceae) has innumerable thin, wiry, intertangled branches often spreading over other shrubs to a height of 3 metres or more. The most unusual growth form is horizontal scrub. This is a small evergreen tree making a closely packed understorey in the forest or forming pure stands in gullies. The trees sometimes grow erect with trunks up to 13 metres high but, typically, slender saplings arch towards the ground and many erect branches arise from the almost horizontal trunks. The branches in turn bend over, interlacing with each other and with branches from adjoining trees. In this way, dense platforms develop at varying heights above the ground.

2.5.2 Mixed Forest

Where rain forest gives way to sclerophyll forest, there is an ecotone of mixed forest, the extent and character of which are largely determined by the incidence of fires. Eucalypts are able to establish in open ground cleared by fire; at altitudes below about 750 metres swamp or stringy gum (*Eucalyptus regnans*), stringy bark (*E. obliqua*) and gum-topped stringy bark (*E. delegatensis*) tower above an understorey of trees and tall shrubs from the rain forest. In this understorey tree ferns are often abundant, their trunks clothed with epiphytes among which filmy ferns (Hymenophyllaceae) are prominent and *Tmesipteris* locally frequent. At higher altitudes, eucalypts characteristic of montane and subalpine communities are found in the ecotone and myrtle may be reduced to a bushy scrub below Tasmanian snow-gum (*E. coccifera*), urn gum (*E. urnigera*), yellow gum (*E. subcrenlata*) or cider gum (*E. gunnii*).

2.5.3 Subalpine Vegetation

Subalpine Communities

The subalpine communities of the mountains form a complex pattern determined by the varied habitats. Endemic conifers often form quite extensive forests; here pencil pine is usually dominant. In some of the moister environments, stands of myrtle extend to the tree line. A second species of myrtle (tanglefoot), forms dense thickets on very exposed slopes. Tanglefoot is an endemic species and Tasmania's only native deciduous tree; its leaves brighten the slopes in autumn by changing colour from green to vivid golden-bronze or red before they fall.

Subalpine Moorland

The term subalpine moorland is used to include a number of communities such as shrubberies, the assemblages characteristic of

screes and mountain-top detritus, herbfields, swamps and bogs. Some shrubberies comprise conifers reaching a height of two to two and a half metres, others consist of lower-growing plants, including the prostrate conifers *Podocarpus alpina* and *Microcachrys tetragona*, and with daisies, waratahs and heaths well represented. The plants of the heath community make a colourful display in summer and early autumn. The flowers of *Richea* (family Epacridaceae) are of particular interest; they are characterised by the corolla, the petals being joined to form a more or less conical cap which does not open when the stamens are mature but splits transversely near the base and falls in its entirety. *Richea scorparia*, which is abundant in the shrubberies, has flower buds ranging in colour from white to apricot, brick red, or deep crimson. The genus comprises some ten species of which only one occurs outside Tasmania, on mountains of the south-east of the Australian continent.

Micro-shrubbery

An interesting plant community, which may be termed a micro-shrubbery, develops on mountain-top detritus (worn rock material), on the margins of shallow pools and on gentle slopes where snow often lies for up to six months of the year. Five species of cushion plant are concerned. These plants are perennial, ever-green and much-branched with the main branches prostrate but sending up short, erect shoots that grow to an even height. The erect shoots are very densely packed; they bear stiff, closely imbricated leaves and adventitious roots. As growth continues, the lower leaves die and the debris, together with roots and with silt washed into the interstices, help to consolidate the mass. A plant spreads to form a mound which may be one and a half metres or more in diameter, the surface flat or rounded and so firm as not to yield underfoot. The species involved are: *Abrotanella forsterioides* (Compositae family), which is able to grow at lower altitudes and in drier situations than the rest; *Pterygopappus lawrencii* (Compositae), distinguished by the sage-green colour of its leaves; *Dracophyllum minimum* (Epacridaceae); *Donatia novae-zelandiae* (Donatiaceae); *Phyllachne colensoi* (Stylidiaceae). This plant community closely resembles those found in comparable habitats in New Zealand and in the Magellanic moorland of South America. The species of *Donatia* and of *Phyllachne* are common to Tasmania and New Zealand.

As the cushion plants spread and adjoin, they form a mosaic which has a continuous level or undulating surface. These plants serve as seed beds for others; the white-flowered *Drosera arcturi* is often conspicuous and the endemic plantain, *Plantago gunnii*, is confined to this habitat. But a cushion plant does not continue to expand to an indefinite size; after a time it dies in the centre allowing the establishment of plants such as the fern *Gleichenia alpina, Calorophus minor* (syn. *Hypolaena lateriflora*, family Restionaceae), *Astelia alpina* (pine-apple grass, family Liliaceae) and also various shrubby species. One result of this method of growth is that the flow of water in the area is interrupted and conditons then favour the development of bog or swamp. In water-logged soils, *Astelia alpina* is locally frequent, often forming extensive mats which are firm underfoot. The leaves of this plant are closely tufted, lanceolate or ensiform and up to 30 cm long; they are very stiff and are held erect showing the lower surface which is silvery white and contrasts with the grey-green upper surface.

2.5.4 Button-Grass Plains

Extensive tracts of country in climatic conditions suitable for the development of temperate rain forest or mixed forest carry sedge-moors which are given the descriptive name 'Button-grass plains'. The characteristic plant is button-grass (*Gymnoschoenus sphaerocephalus*) which grows in tussocks consisting of hard, narrow leaves, one to two metres long, and of slender spreading flower-stalks terminating in small spherical heads of flowers and fruits. This plant community is typical of wet infertile soils that are acid, podsolized and having a surface accumulation of peat. Reaching their greatest development on flat valley floors in areas of high rainfall, the tussocks extend from sea level and spread over hills until they give way to more drought-resistant or cold-tolerant plants of montane and subalpine regions. However, the boundaries of this community are not strictly limited by the nature of the soil and may be extended as a result of repeated fires. While button-grass is a characteristic and conspicuous plant, other monocotyledons, particularly representatives of the Restionaceae, are abundant and sometimes dominant. The yellow-flowered species of *Xyris* (family Xyridaceae) and mauve-flowered *Patersonia fragilis* (family Iridaceae) are widespread and, between the tussocks, small herbaceous plants are locally frequent. Where the soil becomes better drained, woody shrubs appear.

2.5.5 Sclerophyll Forests

Principal Growth

The sclerophyll forests dominated by *Eucalyptus* extend through a wide range of habitats from the margins of rain forests to exposed mountain plateaux and the relatively dry areas of the

midlands. In the dry regions, the forest becomes almost a savannah woodland with scattered trees of cabbage gum (*Eucalyptus panciflora*) and a ground cover of grasses or low shrubs. Between the extremes there are considerable areas of rather open forest. Some 26 species of *Eucalyptus* occur in the State of which about half are endemic. Many of these species are highly variable and the forests show a complex pattern in which variants of one species give way to those of another, in response to slight changes in conditions, e.g. different soil-type or different aspect. Near Hobart a pattern is well shown on the low but much dissected foothills of Mt Wellington. Here the sunny north-facing slopes carry the glaucous species silver peppermint (*E. tasmanica*) or Risdon peppermint (*E. risdoni*) while the south-facing slopes carry the non-glaucous species such as stringy bark and white gum (*E. riminalis*). In the open forests, subdominant trees include species of she-oaks, *Casuarina*, which often forms societies on dry slopes, the semi-parasitic native cherry (*Exocarpos cupressiformis*) and wattles such as *Acacia mearnsii. Banksia marginata* and silver wattle (*Acacia dealbata*) are widespread. Many low-growing shrubs contribute to a colourful show of flowers in spring, representatives of the pea family, heaths, daisies and boronias being the most conspicuous.

Blue Gum

Blue gum (*Eucalyptus globulus*) which has been chosen as Tasmania's floral emblem is, of all Australian eucalypts, the species that has been most widely introduced overseas. The tree has been established throughout the Mediterranean region and in highlands of the tropics in many parts of Africa and India; it is widespread in California and in parts of Chile, Argentina and New Zealand. In many of these regions, the tree has become of considerable economic importance as timber, as a material for paper pulp production, and for fuel and oil. Blue gum is locally abundant in southern and eastern Tasmania; in well-drained soils and in sheltered valleys, it reaches a height of about 60 metres. The tree also occurs in restricted areas near the west and south coast, but, apart from local occurrences in southern Victoria, is native to Tasmania.

2.5.6 Coastal Heath Vegetation

On coasts, mainly in the north-west and north-east of the State, areas of infertile soils support only a heath vegetation of stunted trees and low shrubs. This community, like the sedge-moor, may extend beyond the infertile soils as a consequence of recurrent fires. Two species of grass tree (*Xanthorrhoea australis* and *X. minor*) are locally frequent. These are bizarre plants producing a large number of rigid, persistent, narrow-linear leaves, often half to one and a half metres long and tufted at the top of a stout stem. In *X. australis* the stem may form a trunk up to half a metre high. The flowering stems are erect, typically solitary, and, again in the larger species *X. australis*, from one to two metres high, having the upper half very densely crowded with small bracteate sessile flowers that form a narrow-cylindrical spike. The flowers are white but after they have withered, the dark brown fruiting spikes are long-persistent. The genus is confined to Australia and has been classified in several ways.

2.5.7 Tasmanian Fungi

by *Edward Gall*

When most people think of fungi, they usually think of the mushrooms and toadstools that are commonly found growing on the floor of the forest. Although mushrooms and toadstools are beautiful and varied in form and colour, they comprise only a part of a very diverse group of fascinating organisms present in all natural Tasmanian environments.

Fungi are non-vascular plants that do not possess chlorophyll. They obtain their nourishment either as a saprophyte from dead material or as a parasite on living organisms. The main part of the plant body is the mycelium, an interwoven network of microscopic white threads usually found either under leaves and bark or penetrating through earth and tree trunks. When circumstances are favourable, reproductive spore bearing sporophores develop on the mycelium. These fruiting bodies are the mushrooms, toadstools and brackets that are familiar to everyone.

In Tasmania there has been little study of fungi by either amateurs or professionals. While some isolated groups have been researched, the gaps in our knowledge remain very broad. It is therefore difficult to be conclusive on the nature of all Tasmanian fungi. It is even difficult to determine the proportion of endemic species.

Eygelsheim (1981) estimates that there are over 1 000 species of true toadstools and mushrooms (family *Agaricaceae*) in Tasmania. Many species have apparently been introduced and are associated with agricultural practices and exotic forestry species.

All of the major groups of fungi are represented in Tasmania. Common types of fungi include: the gill fungi (e.g. *Hygrophorus spp.*); the pore fungi (e.g. *Tyromyces bulcherimus*); the jelly fungi (e.g. *Tremella fuciformis*); the cup fungi (e.g. *Aleuris spp.*); the coral fungi (e.g. *Clavulinopsis miniatus*); the puffballs (e.g. *Lycoperdon*

spp.); morels (e.g. *Morchella elata*); and the sponge fungi (e.g. *Fuligo septica*).

There are many brightly coloured, showy fungi in Tasmania such as *Amanita muscaria* and *Russula spp*. One of the most characteristic is the 'myrtle oranges' (*Cyttaria gunnii*) which, as the common name suggests, looks like bunches of oranges hanging in myrtle rainforests.

Although Tasmanian fungi can be found with sporophores at any time of the year, the time when they are most conspicuous and abundant is autumn, particularly after a warm, wet summer. The greatest diversity of species is found in the wet lowland forests, particularly rainforest.

As in most parts of the world, there are edible, halucinagenic and poisonous species. The Tasmanian aboriginals used many species for food including blackfellow's bread, a large species found growing in cavities. Most of the names used by the aboriginals have been lost. As there has not been any subsequent development of a peasant or subsistence culture closely dependent on the natural environment, there are few species with a common name. Where there is a common name, it is often based on European folk-lore and usually applied inconsistently for various species.

There are few native species of direct economic importance other than the field mushroom (*Agaricus campestris*) and the horse mushroom (*A. arvensis*) which are gathered directly from pasture-land for home use. Several introduced species are cultivated for the fresh vegetable market and other species are used in cheese production and brewing. However, the indirect economic importance of fungi for forests and soils is great.

In all established Tasmanian forests there is an amount of forest litter (shed leaves, bark and branchlets) that lies on the forest floor. Given sufficient time, the litter is almost completely digested by fungi and bacteria. In the dry sclerophyll forests, due to the reduced rate of fungal activity caused by the lack of moisture, there is a net accumulation of litter and a consequent potential high fire risk. However, in a rainforest the rate of fungal digestion of litter is close to equilibrium with the rate of litter accumulation, with a consequent low fire risk. In wet sclerophyll forests where conditions are intermediate between these two extremes, there is typically a slow net accumulation of litter and an intermediate frequency of fires.

In the decomposition of organic matter, an important effect is the release of nutrients in a form useful for other species. Another important effect is that of soil conditioning by the humus that has resulted from the breakdown of organic matter.

An interesting phenomenon is the succession of fungal species in the forest litter. The fresh litter is invaded by the fast growing 'sugar fungi' (often from the class *Phycomycetes*) which use the readily available, easily digestible organic molecules such as sugars and proteins as their main source of energy. Having exhausted these resources, there is then an invasion of the 'cellulose fungi' (often from the class *Ascomycetes*) which digest more stable molecules such as cellulose. Finally there is the development of the mycelia of the slow growing 'lignin fungi' (often from the class *Basidiomycetes*) which digest the most stable and hardest to break down molecules such as lignin and the phenolic compounds.

In the litter there is also an 'antibiotic war' in progress. Many of the fungi release antibiotics into the surrounding medium to inhibit or reduce the growth of other fungi and bacteria. This gives rise to a direct competitive advantage against other species. It is from such fungi that many of the antibiotics currently used on humans and in animal husbandry are produced. The potential for Tasmanian fungi in this field remains unresearched.

Many species of native plants have established symbiotic relationships with fungi. In one of these relationships called a mycorrhiza, the fungus provides nitrogen and other nutrients to plant roots in exchange for all or part of its nourishment. The orchids form the best example, and two of the orchids, the potato orchid (*Gastrodia sesamoides*) and the hyacinth orchid (*Dipodium punctatum*) use the relationship so well to their advantage that they have lost their photosynthetic functions. The large tuberous rhizomes of the potato orchid were one of the few sources of dietary starch available to Tasmanian aboriginals. Recent findings imply that the *Eucalyptus spp.*, the main economic forestry species in Tasmania, may also have a mycorrhizal relationship with various species of fungi.

Possibly the most interesting symbiosis of fungi is with algae. In Tasmania, some fungi from the class *Ascomycetes* associate with a single species of either a green alga or a blue-green alga to form an association that acts as a single plant called a lichen. The fungus depends on organic material from the alga and in return supplies a moist environment and basic minerals from the substrate. Lichens are tolerant of extreme illumination and nearly complete desiccation.

Bratt (1976) estimates that there may be up to 500 species of lichens in Tasmania although only half of that number are currently listed. There are some endemic species such as *Lichina tasmanica*. The species are found in all environments from rocks on the highest mountains to the littoral salt-spray zone. They may grow on rocks, soil or as epiphytes on either living or dead wood. The form of the lichen may be: a crust on rocks and soil; a leaf-like thallus on rocks and tree trunks; a spongy matt on soil; a crown-like structure on stems or rocks and soil; or as long pendulous threads. The species found on rocks may be coloured either white, grey, brown, red, yellow or green. Most of those found in forests are yellow or green in colour. Lichens are a major group of the epiphytes that live in rainforests and often their diversity is greater than that of the woody species.

Another peculiar group that is found in Tasmania's wetter forests is the slime moulds. For most of the vegetative part of their unusual life these organisms live as single-celled animal-like amoebae. In suitable circumstances the amoebae are drawn together and fuse to form an acellular multinucleate plasmodium or 'slug'. The slug can slowly stream over the forest floor and logs, responding as an organised organism to stimuli. Eventually in the sexual phase the slug forms stalks up to several centimetres high that terminate in brightly coloured spore capsules that can be extremely ornate.

While this article has dealt with the more conspicuous common groups of fungi, it should be kept in mind that many fungi do not form large sporophores and so remain undetected to all but microscopic analysis. The impact of these on any environment may be as great or greater than the easily identified species.

References

Bratt, G. 'Lichens of the Cradle Mountain area" in *The Tasmanian Tramp*: a magazine of the Hobart Walking Club No. 22, March, 1976. p111–118. Hobart: The Club.

Eygelsheim, W.F. *Tasmanian Mushrooms and Toadstools: a guide with two keys and descriptive notes to the gilled fungi (Agaricaceae)*. Burnie, Tasmania: Burnie Adult Education Publishing Group, 1981.

Large, M and Hora, F.B. *Collins Guide to Mushrooms and Toadstools*. London: Collins, 1965.

McDonald, R. & Westerman, J. *Fungi of South Eastern Australia: a field guide*. Melbourne: Thomas Nelson Prop. Ltd., 1979.

Martin, W. & Child, J. *Lichens of New Zealand*. Wellington: A.H. & A.W. Reed, 1972.

Shirley, J. 'A list of the known lichens of Tasmania' in *Papers and Proceedings of the Royal Society of Tasmania* for 1892 [Hobart]: The Society, 1892 p179–191.

Willis, J.H. *Victorian Toadstools and Mushrooms: a key and descriptive notes to 120 different gilled Fungi (family Agaricaceae) with remarks on several other families of the higher Fungi*. Melbourne: Field Naturalists Club of Victoria, 1950.

Wilson, Rev F.R.M. 'Tasmanian Lichens' Part I in *Papers and Proceedings of the Royal Society of Tasmania* for 1892 [Hobart]: The Society, 1892 p133–178.

2.6 ENVIRONMENTAL MANAGEMENT AND CONTROL

2.6.1 National Parks and Reserves

The value of Tasmania's impressive scenic beauty was already appreciated as far back as 1885 when the first reserve, covering 120 ha around Russell Falls, was created by proclamation.

The Tasmanian Scenery Preservation Board was created by an Act of 1915 and became the vanguard of Australia's heritage authorities.

On August 29, 1916, Freycinet National Park, Mt Field National Park, St Columbia Falls and the convict sites of Port Arthur, Isle of the Dead and the foreshore of Point Puer were among the first proclamations, followed by Gunns Plains Caves, south of Ulverstone, in 1918.

The care of Tasmania's built and natural heritage became the responsibility of a permanent Government department when, in November 1971, Tasmania's National Parks and Wildlife Service was formed.

Tasmania's cultural and natural riches draw some 306 000 visitors annually who contribute significantly to the State's economy.

The Department of Tourism's visitor survey shows that national parks, State reserves and historic sites were high on the list of priorities; 58 per cent of visitors wanted to visit historic sites while 22 per cent were keen to go bushwalking.



Prime Minister Joseph Lyons' home at Stanley, Tasmania. *(Tasmanian Government Stills)*



Commonwealth Law Courts *(Australian Information Service)*



Paxillus infundibuliformis



Amanita muscaria



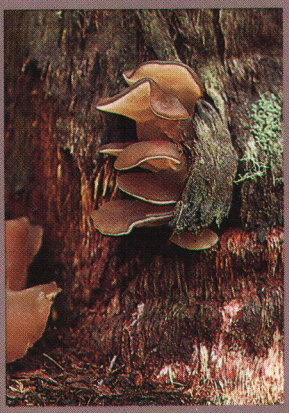
Tremella fuciformis



Clavulinopsis miniatus



Heterotextus sp.



Pseudohydnum gelatinosum



Bertrondia astrogala



Russula sp.



Hygrophorus sp.



Amanita sp.

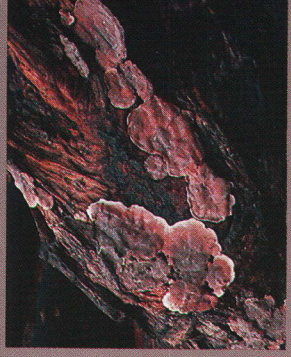


Cyttaria gunnii



Fuligo septica

Tasmanian fungi



Stereum illudens



Hygrophorus sp.



Hypholoma fasciculare



Morchella elata



Ramaria sp.



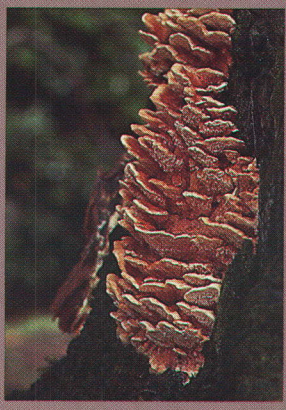
Phylloporus sp.



Clavicorona pyxidata



Clavulinopsis amoena



Irpex sp.



Alpine lichen



Tyromyces bulcherimus



Agaricus sp.

Photographs by Elizabeth Holloway









Winter at Mt Weld

(Edward Gall)



Tasmania's first national park board, then known as the Scenery Preservation Board, at Russell Falls in February 1917

The combination of modern conservation techniques and old skills which have been revived has already been internationally recognised when the Pacific Area Travel Association presented the Heritage Award to Tasmania for the conservation and development of the Port Arthur historic site.

This $9m project was jointly funded by the Commonwealth and State Governments but, unless further funding is forthcoming, this project will cease at its currently scheduled completion date early in 1986te is now among its attractions.

Gravelled and timber walkways have been constructed over sections of the old penal settlement with metal signs featuring graphic aspects and explanatory material concerning convict life.

The ruins of the 'new' penitentiary are presently undergoing urgently needed stabilisation works and in the future, the island will be the subject of archaeological and conservation studies.

A colour brochure, which acts as a site guide, has been produced and a private jetty on the island, which will allow public access, has been bought.

Further up the Gordon River, tenders have been let for the construction of a large, new jetty and walkway near Sir John Falls jetty, which will allow passengers to disembark from tourist vessels to an easy, low gradient and smooth gravel track to the scenic amphitheatre and pool at the foot of the falls.

But apart from the historical aspect, the NPWS is also active in the protection of endangered wildlife. Protection can only be achieved with the co-operation and assistance of the public and the most recent example of such a co-operation approach took place on the North-West Coast.

Counts over recent years at Lillico Beach had shown that over 100 penguins a year were killed in this area by cars. With the invaluable help of volunteers, NPWS rangers erected a chain wire fence to prevent the birds wandering onto the highway, which reduced the death toll significantly.

Another example of such co-operation is occurring in the far north-west, where Three Hummock Island is being developed as a Nature Reserve, with valuable assistance offered annually by the Smithton Rotary Club. The Club has provided volunteer labour to help restore the collapsing wharf. Sheep are pastured on the island to keep the grass to a level which will support populations of Cape Barren geese and forester kangaroo.

The orange-bellied parrot, which has its breeding place in the south-west, is an endangered species, of which only a couple of hundred are to be found. King Island is a resting place for the bird on its migration from the mainland. It is primarily for this reason that the Sea Elephant Wildlife Sanctuary was proclaimed on the east coast of the island as it maintains the natural habitat for this endangered species of parrot.

Whale strandings, which have occurred at Ocean Beach, Macquarie Harbour and Perkins

Bay near Stanley, are always sad events. Wildlife officers have been able to develop and refine successful techniques to return marooned mammals, with the help of volunteers, to deeper water.

The internationally acclaimed overland walking track between Cradle Mountain and Lake St Clair, which takes between five and 10 days to walk from end to end, has attracted many overseas back-packers.

The Cradle Mountain-Lake St Clair National Park covers more than 130 000 ha of wild alpine and rugged mountain country in the heart of Tasmania's Central Highlands.

At both Cradle Mountain and Lake St Clair, the NPWS has established and maintains tourist facilities.

The South-West World Heritage Area comprises Tasmania's three largest national parks —Cradle Mountain-Lake St Clair (131 915 ha), Franklin-Lower Gordon Wild Rivers (181 075) and the South-West (442 240).

The area contains unique flora and fauna, provides spectacular mountain scenery, rainforests, rivers and deep gorges.

Many facilities, such as caravan parks, a camping area, visitor centres, picnic areas and boat ramps, among others, are planned for the area.

2.6.2 Pollution Control

Environmental Impact Studies

Public authorities in Tasmania are required to undertake environmental impact studies before proceeding with any development which may have a significant effect on the environment. During the 12 months to June 1985, 16 environmental impact statements were submitted to the Department of Environment for assessment:

Upgrading of Bass Highway from Penguin to Blythe River;
Sewage treatment plant, Wynyard;
Woodwaste disposal site, APPM Ltd., Long Reach;
Quarry, Blue Gate Road, Margate;
Power Station, Currie, King Island;
Link Road from Murchison Highway to Cradle Mountain Tourist Road;
Alluvial gold mining at Lisle;
Coal mine near Royal George;
A deep water sewage outfall from the Blackmans Bay treatment plant;
Chairlift at the Nut, Stanley;
Alluvial gold mining at Lisle;
Rubicon River improvement scheme;
Tasmanian woodchip exports beyond 1988;
Bellerive By-pass;
Dam near Bothwell;
Installation of coal-fired boiler at a vegetable processing factory, Scottsdale.

In addition, licence applications, transfers or change of operation for 114 scheduled premises were examined and their likely environmental impact assessed by the Department. These premises included refuse disposal sites, sewerage treatment plants, fish processing plants, meat processing works, mines, quarries, loam, sand and clay pits, and abattoirs. Also 11 mines, 22 quarries, 22 gravel, clay, loam and sand pits, together with refuse disposal sites, were inspected and advice given regarding rehabilitation, or rehabilitation reports prepared.

Prosecutions

During the year 17 successful prosecutions were carried out under the *Environment Protection Act*. These covered breaches of licence conditions, the operation of scheduled premises without a licence, emission of pollutants and smoking vehicles; fines of up to $1 250 plus costs were imposed.

Emission Control Exemptions

Provision is made under the *Environment Protection Act* 1973 for the Minister to grant exemptions from the emission controls of Sections 15, 16, or 17 in respect of a specified act or course of action. This is the mechanism by which an industry or operator which is not immediately able to comply with emission controls is enabled to continue operation. There has been a constant decrease in the mass flow of polluting emissions permitted in the course of exempted acts. In April 1985 there were 65 exemptions in force, involving 57 premises. The premises involved were:

Municipal sewage treatment plants	22
Septic tank installations	2
Exemptions to permit fire-fighting training	4
Exemptions for premises awaiting amplification of municipal sewage treatment works to treat their effluents	3
Exemptions current but not actually required (e.g. operation ceased)	4
Abattoirs providing substantial, although incomplete, treatment of effluents	3
Mines where, despite pH control and tailings dams, emission standards are slightly exceeded for some substances	4

Primary metallurgical works in substantial compliance with the standards, but having one or more acts exempted	5
Foundry unable to comply a few days per year	1
Waste burning	2
Paper mill in substantial compliance, but having one or more acts exempted	1
Miscellaneous	6

Litter Control

A total of 120 contravention notices were issued during the year ended 30 June 1985; 10 were issued by police officers, 91 by officers and voluntary authorised officers and 19 reported by municipalities.

A total of 32 prosecutions under the *Litter Act* were initiated during the year. Of these 22 proceeded to conviction and the balance were either withdrawn, dismissed or adjourned sine die. From the convictions, a total of $1 055 in fines and $317 in costs were realised.

During the 12 months, a total of 43 persons were appointed authorised officers under the *Litter Act* 1973. Of these 29 were municipal appointments, 11 Crown employees in government agencies, and three volunteers.

The most recent litter control initiative is the launching in 1984 of a litter reduction campaign, aimed at promoting and generating public concern about the need for litter control and involving the community in a variety of litter reduction activities. The campaign has maintained a high profile through advertising, radio and television interviews, distributing promotional material such as car litter bags, stickers and posters, staging exhibitions and displays and speaking at schools, service clubs, youth and other community organisations.

The campaign is administered by the Litter Control Council, membership of which comprises representatives of those organisations directly responsible for litter control in the State. With a budget of $74 000 provided by the Litter Research Association, and support from media organisations, the major projects have included, a statewide roadside clean-up campaign using hired and volunteer labour, maintaining and upgrading litter stations on the Arthur Highway and the establishment of a Youth Litter Co-ordinating Committee.

Water Pollution

The Department of the Environment undertakes a program of monitoring some of the State's rivers and waterways; the Derwent, Tamar, Mersey Rivers, Lisle Creek, Barilla Bay, Port Cygnet Bay, Emu and Cam Rivers, Cooee Creek, Hospital Bay and Buttons Creek, as well as the site of a bark dump on the East Tamar. During the year eight instances of oil spillages were reported resulting in two prosecutions.

2.7 REFERENCES

Davies, J.L. (ed), *Atlas of Tasmania*, Lands and Surveys Department, Hobart, 1965.

Director of Environmental Control, *Report for the Year 1984–85*, Government Printer, Hobart.

Monthly Weather Review, Tasmania, Bureau of Meteorology, Hobart.

APPENDIX

CLIMATE

Annual Rainfall at Representative Stations, Tasmania (Millimetres)

Station	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*Long-term average (a)*
Avoca	474	563	395	484	546	596	560
Beaconsfield	961	927	706	711	912	896	955
Burnie (APPM)	964	985	749	n.a.	887	856	1 014
Campbell Town PO	400	553	387	422	503	590	550
Cressy Research	546	599	456	522	n.a.	n.a.	642
Franklin	902	842	630	817	828	740	897
Hobart (Weather Bureau)	464	548	399	598	596	716	626
Hobart (Airport)	385	482	335	472	504	625	553
Kettering	n.a.	856	663	997	997	n.a.	881
Launceston (Airport)	597	652	423	488	656	688	708
Lilydale	1 015	1 047	690	786	1 060	n.a.	978
Lymington	713	767	578	856	796	n.a.	790
Maydena	1 401	1 314	1 008	1 026	1 251	n.a.	1 234
New Norfolk	479	559	396	357	484	n.a.	553
Oatlands	439	576	361	480	535	656	563
Queenstown	2 800	2 423	2 263	2 164	2 734	2 041	2 531
Ringarooma	1 175	1 206	882	1 110	1 278	1 218	1 236
Savage River	2 003	1 857	1 578	1 528	1 969	n.a.	1 982
Smithton	1 094	1 124	814	919	1 088	952	1 109
St Helens	639	675	574	797	901	869	780
St Marys	837	1 038	654	1 128	1 266	1 137	1 026
Swansea	458	604	418	585	615	685	614
Triabunna	478	614	375	612	600	750	659
Ulverstone	913	923	763	769	998	n.a.	965

(a) Number of years of record used to calculate the long-term average varies from station to station.

NATIONAL PARKS

National Parks, State Reserves, etc. at 30 September 1985

Name	*Area (ha)*	Location	*Description*
	National Parks		
Asbestos Range	4 281	North coast	Coastal heathland
Ben Lomond	16 526	Central north	Mountainous, ski fields
Cradle Mountain-Lake St Clair	131 920	West central	Mountainous, lake
Franklin-Lower Gordon Wild Rivers	181 075	South-west	Wilderness, rivers
Freycinet	10 010	East coast	Coastal, red granite
Hartz Mountains	6 470	South	Mountainous, scenic
Maria Island	9 672	East coast	Wildlife, convict station
Mount Field	16 257	Central south	Mountainous, skifields
Mount William	13 805	North east	Coastal, wildlife
Rocky Cape	3 070	North west	Coastal heath, banksia
Southwest	442 240	South west	Rugged wilderness
Strzelecki	4 215	Flinders Island	Mountainous, coastal
Walls of Jerusalem	11 510	West central	Elevated plateau, scenic
Total National Parks	851 051		

National Parks, State Reserves, etc. at 30 September 1985 *continued*

Name	*Area (ha)*	*Location*	*Description*
		State Reserves	
Alum Cliffs	1 540	Mole Creek	Scenic gorge and cliffs
Baldock Cave	43	Mole Creek	Caves, sclerophyll forest
Bradys Lookout	1	West Tamar	River, scenic
Brown Mountain—Remarkable Cave	61	Tasman Peninsula	Coastal, scenic
Cape Pillar	3 200	Tasman Peninsula	Coastal, heath
Cape Raoul	2 089	Tasman Peninsula	Coastal cliffs
Croesus Cave	47	Mole Creek	Caves
Derwent Cliffs	5	New Norfolk	Scenic
Devils Gullet	146	North central	Scenic gorge
Eaglehawk Neck—Taranna	25	Tasman Peninsula	Coastal, scenic
Eugenana	1	North west	Stratified cave deposit
Exit Cave	441	South	Australia's largest cave, glow worms
Fairy Glade	39	Central north	Scenic fern glade
Ferndene	35	North	Scenic fern glade
Fluted Cape	530	Bruny Island	Coastal, sclerophyll forest
Forth Falls	55	North central	Waterfall
Gunns Plains Cave	10	North west	Caves
Hastings Caves	61	South	Caves, thermal pool
Hellyer Gorge	569	North west	Scenic rainforest
Henty Glacial Moraine	1	West	Geological feature
Holwell Gorge	121	Central north	Scenic gorge
Ida Bay	425	South East	Scenic reserve, railway
Junee Cave	20	Central south	Cave
Kentford Forest	37	King Island	Relict eucalypt forest
King Solomon Cave	164	Mole Creek	Caves
Kubla Khan Cave	160	Mole Creek	Caves
Labillardiere	2 332	Bruny Island	Coastal heath
Liffey Falls	101	North central	Scenic waterfall
Lookout Rock	2	East coast	Coastal, scenic
Marakoopa Cave	790	Mole Creek	Caves
Marriotts Falls	121	South central	Waterfall
Mount Arthur	4	Tasman Peninsula	Scenic lookout
Mount Barrow	459	North east	Mountain
Mount Barrow Falls	81	North east	Waterfall
Mount Montgomery	299	North west	Scenic
Murchison Highway	452	West	Scenic road, rain forests
Notley Gorge	11	North	Scenic fern gully
Palmers Hill Lookout	1	Tasman Peninsula	Scenic
Pieman River	3 328	West coast	Scenic river
Point Puer—Crescent Bay	53	Tasman Peninsula	Scenic coast
Port Davey	17	South west	Scenic coast
Roger River	174	North west	Scenic rainforest
St Columbia Falls	314	North east	Waterfall
St Marys Pass	273	North east	Scenic
St Patricks Head	150	North east	Scenic
Steppes	48	Central	Homestead, dry sclerophyll forest
Stewarts Bay	78	Tasman Peninsula	Scenic foreshore
Tasman Arch	138	Tasman Peninsula	Coastal, scenic
Tessellated Pavement	4	Forestier Peninsula	Scenic, geological feature
The Nut	59	North west	Scenic, landmark
Thermal Springs	1	Central north	Geological feature
Trowutta Caves	66	North west	Caves, limestone
Waterfall Creek	24	Bruny Island	Scenic forest
Zeehan—Renison Bell	110	West	Scenic forest
Total State Reserves	19 316		
		Historic Sites	
Batchelors Grave	Small	Taroona	Historic grave
Callington Mill	Small	Oatlands	Historic mill
Coal Mines	214	Tasman Peninsula	Convict mine
Currie Lightkeepers Residence	1	King Island	Historic building
161 Davey Street	Small	Hobart	Historic home
D'Entrecasteaux Monument	Small	South	Historic monument
D'Entrecasteaux Watering Place	1	South	Site of early landing

National Parks, State Reserves, etc. at 30 September 1985 *continued*

Name	*Area (ha)*	*Location*	*Description*
		Historic Sites continued	
Entally House	38	Central north	Historic home
Female Factory	Small	Hobart	Historic prison site
George III Monument	10	South	Memorial to ship wreck, flora
Highfield	4	Stanley	Van Diemen's Land Co. house
Kangaroo Bluff	3	Bellerive	Historic fort
Lyons Cottage	Small	Stanley	Historic cottage
Mt Direction	180	East Tamar	Early semaphore station
Old Trinity Church—Criminal Courts	Small	Hobart	Historic building
Oyster Cove	30	South	Aboriginal station
Port Arthur	115	Tasman Peninsula	Convict settlement
Richmond Gaol	1	Richmond	Convict gaol
Risdon Cove	3	Hobart, east	Site of first settlement
Ritchies Mill	Small	Launceston	Old water mill
Ross Female Convict Station	1	Ross	Convict station site
Sarah Island	6	Macquarie Harbour	Site of convict station
Shot Tower	3	Taroona	Historic tower
Strahan Customs House	Small	West coast	Historic building
Sydney Cove	53	Furneaux	Historic shipwreck
Tasman Monument	Small	Tasman Peninsula	Monument to discoverer
Toll House	Small	New Norfolk	Historic building
Waubadebars Grave	Small	Bicheno	Aboriginal grave
Wybalenna	126	Flinders Island	Aboriginal station
York Town	2	North Tamar	Site of early settlement
		Nature Reserves	
Albatross Island	33	Bass Strait	Seabird breeding
Bass Pyramid	Small	Bass Strait	Seal breeding
Betsy Island	181	South east	Scientific reference
Big Green Island	270	Furneaux	Cape Barren Geese
Black Pyramid Rock	40	North west	Seabird rock
Chappell Islands	1 350	Furneaux	Cape Barren Geese
Coal River Gorge	209	South	Scenic
Curtis Island	149	Bass Strait	Ecological reference
Diamond Island	5	East coast	Penguin rookery
Dismal Swamp	100	North west	Blackwood forest
East Kangaroo Island	200	Furneaux	Cape Barren Geese
East Risdon	44	Hobart, east	Rare eucalypts
Foster Island	48	North east	Bird islands
George Rocks	5	North east	Bird islands
Green Island	5	D'Entrecasteaux Channel	Ecological reference
Green Point	22	South east	Research station
Hippolyte Rocks	5	South east	Seal breeding
Hospital Creek	22	South east	Rare endemic plant
Ile des Phoques	7	East coast	Seal breeding
Isabella Island	25	Flinders	Cape Barren Goose breeding
Judgment Rocks	Small	Bass Strait	Seal breeding
Lavinia	4 622	King Island	Heath, dunes
Lime Bay	1 310	Tasman Peninsula	Dry sclerophyll forest
Low Islets	8	Furneaux	Australian pelicans
Macquarie Island	12 785	Sub Antarctic	Research, wildlife
Moriarty Rocks	3	Bass Strait	Seal breeding
Native Point	127	East Tamar	Relict forest
North East Islet	Small	Bass Strait	Seal breeding
Penguin Islet	4	Bass Strait	Seabird breeding
Reid Rocks	Small	Bass Strait	Seal breeding
Rodondo Island	80	Bass Strait	Ecological reference
Tenth Island	1	Bass Strait	Seal breeding
The Doughboys	20	Bass Strait	Seabird breeding
Three Hummock Island	7 284	North west	Sclerophyll forest, heath
Three Sisters—Goat Island	37	North west	Seagull rookery
Truchanas	406	South west	Huon Pine forest
West Moncoeur Island	10	Bass Strait	Seal breeding, ecological reference
Wright Rock	9	Bass Strait	Seal breeding
Total Nature Reserves	29 426		

National Parks, State Reserves, etc. at 30 September 1985 *continued*

Name	*Area (ha)*	*Location*	*Description*
		Aboriginal Sites	
Mount Cameron West	530	West coast	Aboriginal rock-carvings
Sundown Point	132	West coast	Aboriginal rock-carvings
Trial Harbour	1	West coast	Aboriginal rock-carvings
West Point	580	West coast	Aboriginal occupation site
Total Aboriginal Sites	1 242		
		Game Reserves	
Actaeon Islands	9	South	Muttonbird rookeries
Bird Island	65	Bass Strait	Muttonbird rookeries
Bruny Island Neck	1 450	South	Lagoons, coastal heath
Lake Tiberius	983	Midlands	Waterfowl lagoon
Little Dog Island	50	Furneaux	Muttonbird rookeries
New Year Island	112	King Island	Muttonbird rookeries
Petrel Island	50	Bass Strait	Muttonbird rookeries
Stack Island	30	Hunter Group	Muttonbird rookeries
Steep Island	30	Hunter Group	Muttonbird rookeries
Total Game Reserves	2 779		
		Conservation Areas	
Wildlife sanctuaries under National Parks and Wildlife Service Management and acquired areas —			
Asbestos Range	68	North coast	Coastal heathland
Brigg Islet	Small	Furneaux	Bird island
Cat Island	30	Furneaux	Bird island
Central Plateau	23 250	Central north	Alpine vegetation
Chalky Island	36	Furneaux	Bird island
Cockle Creek	41	South	In Southwest Conservation Area
Cradle Mountain—Camp ground	63	North central	Camping and caravan park
Cradle Mountain—Lake St Clair	1	Derwent Bridge	To be added to a National Park
Egg Islands	128	Huon	Estuarine, wetland
Gull Island	32	Furneaux	Bird island
Holwell Gorge	4	North	To be added to a State Reserve
Lackrana	220	Flinders Island	Cape Barren Goose refuge
Lake Sorell	198	Central	Sclerophyll forest
Lavinia	258	King Island	To be added to a Nature Reserve
Liffey Falls	7	North central	To be added to a Scenic Reserve
Logan Lagoon	2 256	Flinders Island	Wetland, marsh
Medeas Cove	81	North east	Estuarine, marsh
Mile Island	8	Furneaux	Bird island
Moulting Lagoon	512	East coast	Brackish lagoon
Mt William	94	North east	To be added to a National Park
Night Island	10	Furneaux	Bird island
Oakleigh Creek	756	North central	Nothofagus forest
Oyster Rocks	10	Furneaux	Bird islands
Pieman River	129	North west	To be added to a State Reserve
Port Arthur	12	Tasman Peninsula	To be added to an Historic Site
Port Cygnet	81	South	Foreshore, marsh
Reef Island	10	Furneaux	Bird island
Risdon Cove	70	Hobart	To be added to an Historic Site
Seal Rocks	127	King Island	To become a State Reserve
South Esk River	142	North Midlands	River, scenic
Tamar River	4 600	North	Estuarine, waterfall
Tathams Lagoon	13	King Island	Freshwater lagoon
Wright and Egg Islands	10	Bass Strait	Bird islands
Wybalenna Island	3	Furneaux	Bird island
Total Conservation Areas	33 260		
		Muttonbird Reserves	
Babel Island	445	Furneaux	Muttonbird hunting ground
Great Dog Island	377	Furneaux	Muttonbird hunting ground
Hunter Island	7 365	North west	Muttonbird hunting ground
Little Green Island	89	Furneaux	Muttonbird hunting ground
Outer and Inner Sister Islands	1 012	Furneaux	Muttonbird hunting ground
Total Muttonbird Reserves	9 288		

National Parks, State Reserves, etc. at 30 September 1985 *continued*

Name	*Area (ha)*	*Location*	*Description*
Wildlife Sanctuaries Under Joint Management With Other Authorities			
Badger Corner	333	Flinders Island	Foreshore and marine
Ben Lomond	2 665	North east	Wet sclerophyll forest
Burnie Fernglade	44	North west	Fern gully
Cape Contrariety	4	South east	Muttonbird rookery
Cape Direction	5	South east	Muttonbird rookery
Cape Portland	663	North east	Waterfowl habitat
Carr Villa	62	Launceston	Modified sclerophyll forest
Chauncy Vale	357	East central	Dry sclerophyll forest
Deal Island	1 623	Bass Strait	Island, grassland
Deloraine	2	North central	Riverine, waterfowl
Derwent River	1 568	South east	Estuarine, river, marsh
Four Mile Creek	607	North	Estuarine, flats
Fulton Park	34	North	Scout camp
Glenorchy Water Reserve	712	Hobart, west	Dry sclerophyll forest
Goose Island	97	Furneaux	Seabirds
Grimes Lagoon	173	Midlands	Freshwater lagoon, birds
Goulds Lagoon	8	Hobart, north	Brackish lagoon, birds
Henry Somerset Orchid	39	North	Orchid flora
Kingston Golf Course	61	Kingston	Dry sclerophyll forest
Lake Dulverton	217	Oatlands	Freshwater lagoon, birds
Launceston Golf Course	61	Launceston	Dry sclerophyll forest
Paterson Island	16	North central	Modified sclerophyll forest
Patriarchs	101	Flinders	Cape Barren Geese
Pipers River	162	North east	Riverine
Punchbowl	24	Launceston	Modified sclerophyll forest
Reekara	2 428	King Island	Heathland tea tree
Sandspit River	550	East coast	Estuarine, marsh, birds
Scottsdale, NE Park	16	North east	Modified wet sclerophyll forest
Sea Elephant River	1 186	King Island	Coastal dunes, heath
Southport Lagoon	3 556	South east	Coastal lagoon
Southwest	777 151	South west	Scenic wilderness
St Clair Lagoon	255	South central	Lagoon
The Lea	150	South	Scout camp
Tooms Lake	22 663	East central	Lake, dry sclerophyll forest
Wayatinah Lagoon	1 809	South central	Storage reservoir
Woodstock Lagoon	20	North	Waterfowl habitat
Total Wildlife Sanctuaries Under Joint Management With Other Authorities	819 421		

NOTE: Sclerophyll forest: The term *sclerophyll* means 'hard leaved'. Most Australian forests are dominated by trees (usually eucalypts) and shrubs which have thick, hard leaves — an adaption to the dry Australian environment.

Chapter 3

GOVERNMENT AND ADMINISTRATION

		Page No.
3.1	**Australia's Federal System**	51
3.1.1	Division of Powers	51
3.2	**Commonwealth Government**	51
3.2.1	The Governor-General	51
3.2.2	Commonwealth Parliament	52
3.2.3	Commonwealth Government Departments and Instrumentalities	54
3.3	**Tasmanian Government**	56
3.3.1	Historical Summary	56
3.3.2	The Governor	56
3.3.3	The Cabinet and Executive Government	57
3.3.4	The House of Assembly	58
3.3.5	The Legislative Council	60
3.3.6	Departments	61
3.4	**Acts of State Parliament**	65
3.5	**State Emblems**	70
3.6	**Local Government**	70
3.6.1	Local Government Review 1984–85	71
3.6.2	Cities and Municipalities	73
3.7	**References**	79

Chapter 3

GOVERNMENT AND ADMINISTRATION

3.1 AUSTRALIA'S FEDERAL SYSTEM

Since 1 January 1901, Australia has been a federation of six States. In 1911 two territories, the Australian Capital Territory and the Northern Territory, were transferred to the Commonwealth from New South Wales and South Australia.

With all States having delegated some powers and responsibilities to elected local authorities, government in all States is exercised in three jurisdictions:

- Commonwealth Government, with powers derived from a written constitution and centred in Canberra, the national capital;
- State Government with residual powers (powers not reserved for the Commonwealth) which in Tasmania is centred in Hobart;
- Local Government with authority derived from State acts and operating in 43 municipalities and four cities.

3.1.1 Division of Powers

Commonwealth

The main responsibilities of the Commonwealth Government are:

Foreign affairs and diplomatic representation; maintenance of the armed forces; customs and excise; posts and telegraphs; control of broadcasting and television; control of civil aviation; repatriation of ex-servicemen; immigration; industrial arbitration for national industries; control of coinage and currency; overseas trade promotions; employment service; pensions; national health benefits; federal territories and overseas dependencies; census and statistics; meteorological service; federal courts and police; control of banking; collection of sales and income taxes; housing assistance and defence service homes; scientific and industrial research; management of state and national debt; lighthouses and navigation.

State

The Tasmanian Government provides the greater number of community services including; transport, education, health, community welfare, housing, consumer affairs, forestry, fisheries, fire, police, emergency, agricultural and farming services. The Tasmanian Government is also responsible for prisons, courts, libraries, probation, racing and gaming, and labour and industry. (A full list of Commonwealth and Tasmanian Government Departments and their principal officers is given later in this Chapter.)

Local Government Activities

Local Government is mainly responsible for the maintenance of; parks, recreational and sporting facilities, roads and cemeteries and provides town planning, sewerage, water, waste disposal and public health services.

3.2 COMMONWEALTH GOVERNMENT

Legislative power of the Commonwealth is vested in the Commonwealth Parliament which consists of the Sovereign, Queen Elizabeth II (represented by the Governor-General), the Senate and the House of Representatives.

3.2.1 The Governor-General

Under the Commonwealth Constitution, ultimate executive power is vested in the Crown and is exercised by the Governor-General as the direct representative of the Sovereign. Under the conventions of responsible government the Governor-General's functions are exercised on the advice of the Ministers of State. Appointment to the office is made by the Crown after consultation with the Prime Minister. The present Governor-General is His Excellency Sir Ninian Martin Stephen, PC, AK, GCMG, KBE, K St J, who was sworn in on 29 July 1982.

3.2.2 Commonwealth Parliament

The Senate

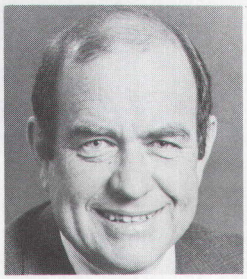
Each State is represented by twelve Senators and, in addition, the Australian Capital Territory and the Northern Territory have been represented by two Senators each since the election of 13 December 1975. Each Senator's term is normally six years, as half the Senate seats come up for election every three years. However, in the case of a double dissolution of both Houses, half the Senators are elected for a six-year term (the first six elected in each State) and half for a three-year term.

In Senate elections each State is an electorate. Electors are required to cast a vote for every candidate standing within the State in order of their preference or for a Party or group. Election of members is carried out in accordance with the principles of proportional representation by the single transferable vote.

If a vacancy occurs in the Senate, the appropriate State Government nominates a replacement, of the same political affiliation, who sits until the next general election (either for the House of Representatives or for the Senate), when an election is held to fill the vacancy. If a Senator fills such a vacancy through an election held at the same time as an election for the House of Representatives, his term will be the same as if the vacating member's term were to run its full course. If the vacant seat is contested at an ordinary Senate election, then seven, instead of the normal six candidates, will be elected in the State affected and the Senator last elected will fill the vacancy for a term shorter than the full six years.

On 1 December 1984 an election was held for the House of Representatives and half the Senate to fill the five vacancies of the Senators retiring in June 1985 and an additional two vacancies created by an amendment to the *Representation Act*.

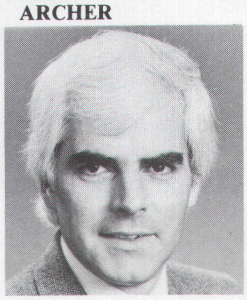
SENATORS July 1985



BRIAN ARCHER



TERRY AULICH



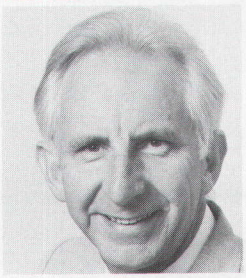
JOHN COATES



RAY DEVLIN



HON. DON GRIMES

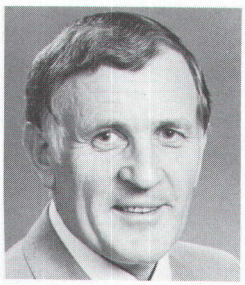


BRIAN HARRADINE

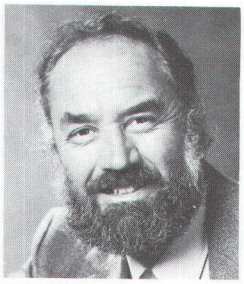
3.1 Tasmanian Senators July 1985

Senator	*Office address*	*Party affiliation*	*Year of retirement*
Archer, B. R.	15 Wilmot Street, Burnie, 7320	Liberal	1991
Aulich, T.	52 Tamar Street, Launceston, 7250	ALP	1991
Coates, J.	16 Victoria Street, Hobart, 7000	ALP	1991
Devlin, R.	47 Cattley Street, Burnie, 7320	ALP	1991
Grimes, Hon. D. J.	42 St John Street, Launceston, 7250	ALP	1988
Harradine, R. W. B.	Marine Board Building, 1 Franklin Wharf, Hobart, 7000	Independent	1988
Rae, P. E.	55 Cameron Street, Launceston, 7250	Liberal	1988
Sanders, N. K.	18 Gregory Street, Sandy Bay, 7005	Australian Democrats	1988
Tate, M. C.	Post Office Annexe, Elizabeth Street, Hobart, 7000	ALP	1988
Townley, M.	AMP Building, 86 Collins Street, Hobart, 7000	Liberal	1991
Walters, M. S.	Marine Board Building, 1 Franklin Wharf, Hobart, 7000	Liberal	1988
Watson, J. O. W.	42 St John Street, Launceston, 7250	Liberal	1991

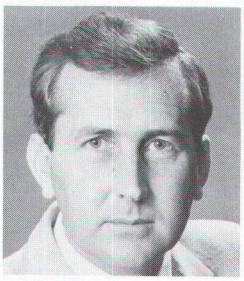
SENATORS July 1985



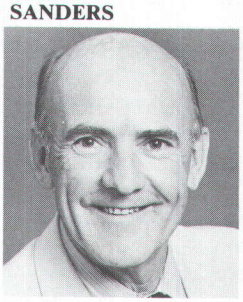
PETER RAY



NORM SANDERS



MICHAEL TATE



MICHAEL TOWNLEY



SHIRLEY WALTERS



JOHN WATSON

The House of Representatives

The founders of the parliamentary system, when designing the House of Representatives, envisaged a legislative body representing the national interest. The party holding a majority of seats in the House of Representatives, therefore controlling the House, provides the Government. The federal election of December 1984 returned the Labor Government under the leadership of Prime Minister Robert Hawke.

Following an increase in the size of the Parliament in 1984, Australia is divided into 148 single-member electorates. Five are in Tasmania, the boundaries of which are shown on the following page. All five have been held by the Liberal Party since November 1975.

Election of members is carried out in accordance with the principles of the absolute majority through use of preference voting. If a vacancy occurs, it is filled by holding a by-election. Elections must be held at least every three years.



Tasmanian Members of the House of Representatives. From left: Warwick Smith, Chris Miles, Bruce Goodluck, Michael Hodgman, Max Burr.

Representation in the House of Representatives is based upon the general principle of having, as nearly as practicable, electorates with equal numbers of electors. This is provided by regular electoral redistributions. The following table indicates the representation by State at elections immediately following electoral redistribution and/or passage of legislation creating additional electorates.

3.2 Membership: House of Representatives

Year	*NSW*	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*NT*	*ACT*	*Total*
1948	28	20	10	5	6	5	1	—	75
1949	47	33	18	8	10	5	1	1	123
1955	46	33	18	9	11	5	1	1	124
1969	45	34	18	9	12	5	1	1	125
1974	45	34	18	10	12	5	1	2	127
1977	43	33	19	10	11	5	1	2	124
1980	43	33	19	11	11	5	1	2	125
1984	51	39	24	13	13	5	1	2	148

3.2.3 Commonwealth Government Departments and Instrumentalities in Tasmania *(a)*

Aboriginal Affairs Department of, 80 Elizabeth Street, Hobart, Tel. 20 5011
Acting Officer-in-Charge: B. Mansell

Administrative Services Department of, Commonwealth Government Centre, Tel. 20 5011
Chief Property Officer: I.M. Preston

Advisory Council for Inter-Government Relations, 110 Hampden Road, Hobart, Tel. 30 8011
Acting Director: Dr C. Balmer

Attorney-General's Department, Commonwealth Government Centre, Tel. 20 5011
Australian Government Solicitor & Director of Legal Services: W.D. Baker

Auditor-General's Office, 86 Collins Street, Hobart, Tel. 20 5011
Chief Auditor: F. Self

Australian Archives Office, 4 Rosny Hill Road, Rosny, Tel. 44 0111
Regional Director: R. Middleton

Australian Broadcasting Corporation, 171 Macquarie Street, Hobart, Tel. 30 9903
Manager for Tasmania: J.D. Marshall

Australian Broadcasting Tribunal, 11th Floor, AMP Building, 86 Collins Street, Hobart, Tel. 34 5388
State Representative: M. Trimmer

Australian Bureau of Statistics, Commonwealth Government Centre, Tel. 20 9555
Deputy Commonwealth Statistician and Government Statistician of Tasmania: G.D. Cocking

Australian Customs Service, 19 Davey Street, Hobart, Tel. 30 1201
Collector of Customs: T. Minogue

Australian Electoral Commission, 86 Collins Street, Hobart, Tel. 20 5011
Australian Electoral Officer: D.G. McDermott

Australian Federal Police, Magnet Court, Sandy Bay, Tel. 23 6508
Officer-in-Charge: Inspector W.L. May

Australian Postal Commission, GPO, Hobart, Tel. 20 7330
State Manager: J.D. Cowling

Australian Taxation Office, Commonwealth Government Centre, Tel. 20 5011
Deputy Commissioner: G. Brown

Australian Telecommunications Commission, 47 Liverpool Street, Hobart, Tel. 20 8111
State Manager: D.J. Robinson

Aviation Department of,
Hobart Airport, Tel. 48 5041
Airport Director: C. Harris
Launceston Airport, Tel. (003) 91 8288
Airport Director: P. Doyle

Commissioner for Employees Compensation, Tasmanian Office, Reserve Bank Building, Macquarie Street, Hobart, Tel. 23 6076
Branch Manager: R.G. Leitch

Communications Department of, 162 Macquarie Street, Hobart, Tel. 20 5011
State Manager: H. Melling

Conciliation and Arbitration Commission, 45 Murray Street, Hobart, Tel. 20 1700
Deputy Industrial Registrar: I. Mcleod

Defence Department of, Anglesea Barracks, Davey Street, Hobart, Tel. 20 0141
Regional Secretary: C. Groszek
RAAF Support Unit, 8 Fitzroy Place, Sandy Bay, Tel. 21 2344
Senior Air Force Officer, Tasmania: Wing Commander S. Boyce
Army Office, Anglesea Barracks, Davey Street, Hobart, Tel. 21 2200
Commander, Sixth Military District: Colonel R.P. Beesley, AM
Naval Staff Office, 1 Franklin Wharf, Hobart, Tel. 21 2200
Naval Officer Commanding, Tasmania: Commander J.E. Scott, MBE, RAN

Education Department of, 115 Collins Street, Hobart, Tel. 20 5011
Director: G.J. Aubert

continued

Commonwealth Government Departments and Instrumentalities in Tasmania *(a) cont.*

Employment and Industrial Relations Department of, 45 Murray Street, Hobart, Tel. 20 5011
Regional Director: N.P. Harrigan

Family Court of Australia, Davey Street, Hobart, Tel. 34 2466
Registrar: W. Court

Finance Department of, Commonwealth Government Centre, Tel. 20 5011
Acting Director: H. Campbell

Foreign Affairs Department of, 115 Collins Street, Hobart
Senior Foreign Affairs Representative: P.R. Potter

Health Department of, 2-8 Kirksway Place, Battery Point, Tel. 20 5011
Regional Director: Dr C.W. Phillips

Health Insurance Commission, 77 Collins Street, Hobart, Tel. 34 7999
State Manager: J. McArdle

High Court of Australia, Franklin Square, Hobart, Tel. 30 8022
District Registrar: J. Dale

Home Affairs and Environment Department of, see Australian Archives Office

Housing and Construction Department of, 162 Macquarie Street, Hobart, Tel. 20 5011
Controller: E. Hazeldine

Immigration and Ethnic Affairs Department of, Commonwealth Government Centre, Tel. 20 5011
Regional Director: J. Wimpole

Industry, Commerce and Technology, Department of, 162 Macquarie Street, Hobart, Tel. 30 4095
State Director: J. Shaw
Analytical Laboratory, Channel Highway, Kingston, Tel. 29 0389
Director: K. Wilson
Antarctic Division, Channel Highway, Kingston, Tel. 29 0209
Acting Director: J. Bleasel
Meteorology Bureau of, 20 Ellerslie Road, Hobart, Tel. 23 2834
Regional Director: E.F. Phillips

Ombudsman, 23 Kirksway Place, Battery Point, Tel. 34 9200
Ombudsman: R. Whilley

Primary Industry Department of, 162 Macquarie Street, Hobart, Tel. 20 5011
Regional Director: S. Bailey

Public Service Board, Commonwealth Government Centre, Tel. 20 5011
Regional Director: G. Sullivan

Reserve Bank of Australia, 111 Macquarie Street, Hobart, Tel. 30 1301
Manager for Tasmania: J.K. Colditz

Social Security Department of, Commonwealth Government Centre, Tel. 20 5011
Director: P. Marrs

Supreme Court and Sheriffs Department, Salamanca Place, Hobart, Tel. 30 3427
Registrar and Officer of the High Court: J. Dale

Trade Practices Commission, 1 Franklin Wharf, Hobart, Tel. 34 5155
Acting Regional Director: G. Pinner

Trade Department of, 162 Macquarie Street, Hobart, Tel. 20 5011
Regional Director: P. McNamara

Transport Department of, Surface Transport Group, 11 Elizabeth Street, Hobart, Tel. 20 5011
Assistant Director: J. St A. Harley

Trans Australia Airlines, 4 Liverpool Street, Hobart, Tel. 38 3511
Manager: B.T. Kearns

Veterans' Affairs Department of, 2-8 Kirksway Place, Battery Point, Tel. 20 5011
Deputy Commissioner: J. O'Connor

(a) As at August 1985.

NOTE: The Commonwealth Government Centre is located at the corner of Harrington and Collins Streets, Hobart. All principal offices shown above are within the 002 STD area unless otherwise indicated.

3.3 TASMANIAN GOVERNMENT

3.3.1 Historical Summary

In its short history, Tasmania has experienced several forms of government; beginning with autocratic rule, it graduated to responsible self-government as a British colony and finally surrendered some sovereign powers to take its place as an original Australian State.

The evolution of the system of bi-cameral responsible government within a federal system falls into five distinct phases:

1803–1825: The island was part of the colony of New South Wales and its lieutenant-governors and commandants were subordinate to the Governor in Sydney.

1825–1851: On 14 July 1825, Van Diemen's Land was created a separate colony with a Lieutenant-Governor directly responsible to the Secretary of State in London. A nominated Legislative Council was established.

1851–1856: The passage of the *Australian Constitution Act* 1850 by the Parliament in London was followed by the establishment of a new Legislative Council in which 16 members were elected and eight were nominees of the Lieutenant-Governor. The newly constituted Council first sat on 1 January 1852.

1856–1901: By the *Constitution Act* 1854, two houses of parliament, the House of Assembly and the Legislative Council were established, both houses being elected. The first Parliament sat on 2 December 1856 (the first year in which the island was officially called Tasmania); representatives of the Crown carried the title of Governor.

1901: The Tasmanian Constitution was limited by the establishment of the Commonwealth Constitution. In effect, the Parliament of Tasmania may make laws operative within the State upon all matters not within the exclusive power of the Australian Parliament but, on those matters for which the Australian Government may also legislate, the Tasmanian law may be superseded by the passing of an act by the Commonwealth Parliament.

Tasmania's legislature consists of the Queen, represented by the Governor, and two houses of parliament, the Legislative Council (upper house) and the House of Assembly (lower house).

3.3.2 The Governor

The Governor of Tasmania is the representative of the Sovereign in the State and exercises the powers of the crown in State matters. The Queen appoints the Governor on the advice of the Premier, generally for a five-year term. Powers and duties of the Governor are similar to those of the Governor-General.

On all official State occasions, he performs the ceremonial functions as the representative of the Queen. The Governor summons and prorogues parliament; in special circumstances he may dissolve it after considering the advice of his Premier. Bills which have passed all stages in parliament are submitted to the Governor for his assent although there are some subjects which are specifically reserved for the Royal Assent (e.g. a Bill granting land or money to the Governor). He opens each session of parliament by outlining the legislative program of the government, but takes no other part in the sittings of either house.

His executive powers include the appointment of ministers of the Crown, judges and other important State officers but not those whose appointments may be made by certain statutory corporations. By appointing ministers of the Crown, the Governor creates the Executive Council of the day and he is required by his instructions to be guided by the advice of this body. Should he feel it necessary to act against the advice of the Executive Council, he may do so, but the reasons for such action must be immediately reported to the Queen.

If the Governor is to be absent for a period in excess of one month, the Chief Justice acts as Administrator. Tasmanian's present Governor is H.E. Sir James Plimsoll, AC, CBE, who was sworn in in 1982.



3.3 Succession of Governors, Acting Governors, Administrators, etc. from 1924

Name	Designation	Term of office	
		From	To
Sir James O'Grady, KCMG	Governor	23.12.24	23.12.30
Sir Herbert Nicholls, KCMG	Lieutenant-Governor	23.12.30	4. 8.33
Sir Ernest Clark, KCMG, KCB, CBE	Governor	4. 8.33	4. 8.45
Sir John Morris, KT	Administrator	4. 8.45	24.12.45
Admiral Sir Hugh Binney, KCB, KCMG, DSO	Governor	24.12.45	8. 5.51
Sir John Morris, KCMG	Administrator	8. 5.51	22. 8.51
Rt. Hon. Sir Ronald Cross, Bart, KCMG, KCVO	Governor	22. 8.51	4. 6.58
Hon. Sir Stanley Burbury, KBE	Administrator	4. 6.58	21.10.59
Rt. Hon. Lord Rowallan, KT, KBE, MC	Governor	21.10.59	25. 3.63
Hon. Sir Stanley Burbury, KBE	Administrator	25. 3.63	24. 9.63
Lt-General Sir Charles Gairdner, KCMG, KCVO, KBE, CB	Governor	24. 9.63	11. 7.68
Hon. Sir Stanley Burbury, KBE	Administrator	11. 7.68	2.12.68
Lt-General Sir Edric Bastyan, KCMG, KCVO, KBE, CB	Governor	2.12.68	30.11.73
Hon. Mr Justice Green	Administrator	30.11.73	5.12.73
Hon. Sir Stanley Burbury, KCVO, KBE	Governor	5.12.73	30. 9.82
Hon. Sir Guy Green, KBE	Lieutenant-Governor	1. 4.82	30. 9.82
Sir James Plimsoll, AC, CBE	Governor	1.10.82	

3.3.3 The Cabinet and Executive Government

In Tasmania, as in the other States and the Commonwealth, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as 'Cabinet', or 'responsible' government. Its essence is that the head of the State (in Tasmania, the Governor) should perform governmental acts on the advice of his ministers; that he should choose his ministers of State from members of parliament belonging to the party, or coalition of parties, commanding a majority in the popular house; that the ministry, the Cabinet, so chosen should be collectively responsible to that house for the government of the country; and that the ministry should resign or advise an election if it ceases to command a majority there.

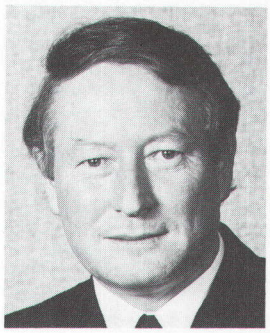
The Cabinet system operates chiefly by means of constitutional conventions, customs or understandings, and through institutions that do not form part of the legal structure of government. In law, the executive power of the State is exercised by the Governor who is advised by the Executive Council which he himself has appointed.

Ministerial Responsibility

The ministers of the Cabinet are held responsible for the actions and administration of government departments and other governmental authorities which have been created for three basic purposes: to put into practice the laws made by parliament; to give effect to the decisions of the ministry; and to advise the ministry on matters of policy.

Premiers

The present Premier of Tasmania is The Honourable Robin Trevor Gray who, as leader of the Liberal Party, assumed office following the Liberal Party gaining a majority in the 1982 election.



3.4 Premiers from 1939

Name of Premier	Term of office	
	From	To
A.G. Ogilvie *(a)*	22. 6.34	10. 6.39
E. Dwyer-Gray	11. 6.39	18.12.39
R. Cosgrove	18.12.39	18.12.47
E. Brooker	18.12.47	25. 2.48
R. Cosgrove	25. 2.48	26. 8.58
E.E. Reece	26. 8.58	26. 5.69
W.A. Bethune	26. 5.69	3. 5.72
E.E. Reece	3. 5.72	31. 3.75
W.A. Neilson	31. 3.75	1.12.77
D.A. Lowe	1.12.77	11.11.81
H.N. Holgate	11.11.81	26. 5.82
R.T. Gray	26. 5.82	

(a) Tasmania had an unbroken succession of Labor premiers, starting with the Ogilvie Ministry (1934) until the electoral defeat of the Reece government on 26 May 1969.

3.3.4 The House of Assembly

The Tasmanian Lower House comprises 35 members elected for a term of four years from five seven-member electorates.

3.5 Members of the House of Assembly as at 1 January 1985

Electoral division	*Member's name*	*Party affiliation*
	Beswick, The Hon. R.J.	Liberal
	Bushby, The Hon. M.H.	Liberal
	Holgate, The Hon. H.N.	ALP
Bass	James, G.H.	ALP
	Lyons, The Hon. B.A.	Liberal
	Patmore, P.	ALP
	Robson, N.M.	Liberal
	Bonney, R.C.	Liberal
	Cornish, R.	Liberal
	Coughlan, J.A.	ALP
Braddon ...	Davies, R.G.	ALP
	Field, M.W.	ALP
	Groom, The Hon. F.R.	Liberal
	Smith, V.J.	Liberal
	Amos, J.J.	ALP
	Brown, R.J.	Ind.
	Davis, The Hon. G.B.	Liberal
Denison	Graham, R.J.	ALP
	Haros, G.G.	Liberal
	Holmes, C.M.	Liberal
	Walker, P.B.	Liberal
	Aird, M.A.	ALP
	Beattie, J.M.	Liberal
	Cleary, The Hon. T.J.	Liberal
Franklin ...	Lowe, The Hon. D.A.	Ind.
	McKinnon, W.G.	ALP
	Pearsall, The Hon. G.A.	Liberal
	Wriedt, The Hon. K.S.	ALP
	Baldock, D.J.	ALP
	Braid, The Hon. I.M.	Liberal
	Gray, The Hon. R.T.	Liberal
Lyons	Lohrey, A.B.	ALP
	Page, G.R.	Liberal
	Polley, M.R.	ALP
	Salter, S.G.	Liberal

Officers of the House of Assembly

Speaker — The Hon. M. Bushby
Chairman of Committees — Mr J. Beattie
Clerk — Mr P. McKay
Clerk Assistant and
Sergeant-at-Arms — Mr P. Alcock

Electoral System

Tasmania uses proportional representation known as the Hare-Clark system in elections for the Assembly.

- Party groups are identified on ballot papers.
- Candidates' positions within groups are rotated so that in 'preferred' positions all candidates appear on the same number of ballot papers.
- A valid vote must show at least seven preferences.
- To secure election, candidates must secure a quota — the total first preference votes divided by eight, plus one vote.
- On polling day, no media advertising and no soliciting of votes near the polling booth is permitted.
- The constituencies are the same five divisions used for House of Representatives elections.

1986 Election

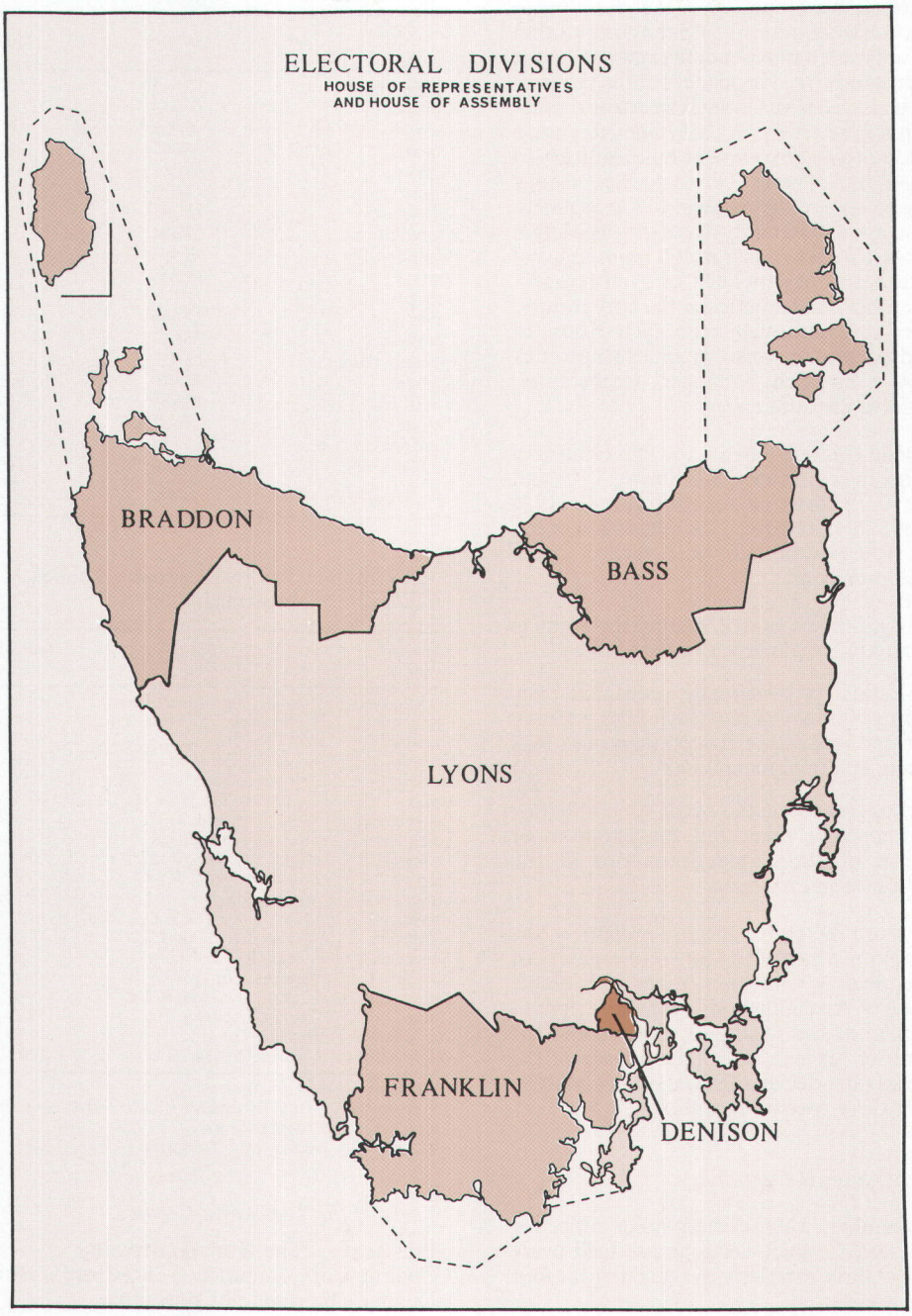
Months of speculation about an early election ended when the Premier nominated February 8 as polling day, four months ahead of the due date; a total of 36 candidates nominated.

The result was a widely-predicted win for the Liberal Party, gaining 53.9 per cent of the state-wide vote, an increase of five per cent over their 1982 vote. For the Labor Party there were few signs of encouragement; electoral support slipped to just 35.4 per cent.

3.6 Party Distribution of Votes in Electorates (%)

Electorate	*Australian Labor Party*	*Australian Democrats*	*Liberal Party*	*Other*
Bass	38.0	6.2	55.8	—
Braddon	34.2	3.4	60.4	1.9
Dension	31.3	—	43.4	25.4
Franklin	36.5	—	51.5	12.0
Lyons	37.2	—	59.2	3.4
Statewide	35.4	1.9	54.0	8.7

The election was particularly noteworthy for the high turnover in sitting members. No less than 13 members were defeated including two ministers. For the Liberal Party, Brendan Lyons, John Cleary (Ministers), Carmel Holmes, Peter Walker, Stephen Salter, and Max Bushby (the Speaker), were defeated while Labor members, Julian Amos, John Coughlan, Glen Davies, Bob Graham, Bill McKinnon and Andrew Lourey also lost their seats. Gabriel Haros, who turned Independent when denied re-endorsement by the Liberal Party, was also defeated, while Liberal John Bonney and Independent Doug Lowe retired. In all, 15 new members were elected, including three who became Ministers; Nick Evers, Peter Hodgman and John Bennett. For a second successive term there were to be two Independents with Gerry Bates in Franklin joining Bob Brown in Denison.


ELECTORAL DIVISIONS
HOUSE OF REPRESENTATIVES
AND HOUSE OF ASSEMBLY
BRADDON
BASS
LYONS
FRANKLIN
DENISON

3.3.5 The Legislative Council

The Legislative Council has the tradition of being a non-party house; in 1985 the composition of the house was 18 Independents and one Labor Party representative. The leader for the Government in the Legislative Council therefore cannot rely upon a vote taken on party lines to ensure the passage of any government bill. Contrary to the House of Assembly where parties usually dominate to ensure the passage of Government legislation, no such certainty exists with legislation through the Council. As a result it is not unusual for legislation to be amended or even rejected. Where conflict occurs between the two Houses, 'managers' are appointed from each House to meet and attempt to resolve the dispute. Occasionally, even such 'Managers Conferences' fail to resolve the differences.

Following conflict between the two Houses of Parliament over a money bill during 1924 and 1925, the *Constitutional Amendment Act* 1926 was passed. This Act defined the relations between the two Houses especially with regard to the passing of money bills.

- The Legislative Council retains the right to reject any bill, including a money bill.
- The Council is specifically prevented from amending bills to raise revenue for the ordinary annual services of the Government and bills imposing land and income tax.
- It can suggest to the House of Assembly that amendments be made but the adoption or rejection of such amendments is at the discretion of the Assembly.

Apart from the above specific exception, the Council retains the right to amend money bills, e.g. those dealing with loan funds or probate. The House of Assembly is given the sole right to initiate bills for the raising of revenue and the imposition of taxes. Finally, the powers of the two houses are declared equal in all matters except for these specific exceptions.

Legislative Council Elections

Each member, when elected, holds office for six years and Council elections are held every year to elect three members; every sixth year four members are elected.

As for the Assembly, candidates' names are rotated on the ballot papers. To secure election, a candidate must obtain 50 per cent of the valid votes plus one, including preferences. A valid vote must show at least three preferences.

3.7 Legislative Council Enrolments 30 June

Electoral division	*1978*	*1985*
Buckingham	15 544	15 358
Cornwall	13 948	12 446
Derwent	6 623	14 003
Gordon	6 607	5 664
Hobart	14 061	15 118
Huon	13 855	16 812
Launceston	14 781	14 519
Macquarie	7 684	11 095
Meander	8 495	12 858
Mersey	19 346	18 227
Monmouth	11 175	14 727
Newdegate	17 849	13 406
Pembroke	25 617	18 868
Queenborough	13 623	13 371
Russell	12 910	13 288
South Esk	10 855	12 641
Tamar	9 821	11 951
West Devon	15 134	16 107
Westmorland	11 996	14 662
Total	249 924	265 121

3.8 Members of the Legislative Council, September 1985

Electoral division	*Member's name*	*Year of retirement*
Buckingham	Lowrie, The Hon. K.F. (*a*)	1986
Cornwall	McKenrick, The Hon. R.L.	1990
Derwent	Batt, The Hon. C.L. (*b*)	1991
Gordon	Broadby, The Hon. A.J.	1988
Hobart	Petrusma, The Hon. T.H.	1988
Huon	Hodgman, The Hon. P.C.L. (*c*)	1990
Launceston	Wing, The Hon. D.G.	1988
Macquarie	Shaw, The Hon. G.A.	1986
Meander	Hope, The Hon. R.J.	1991
Mersey	Braid, The Hon. H.W.	1990
Monmouth	Wilson, The Hon. S.J.	1987
Newdegate	Miller, The Hon. B.K.	1987
Pembroke	McKay, The Hon. P.C.	1989
Queenborough	Stopp, the Hon. E.J.	1989
Russell	Fletcher, The Hon. A.W.	1987
South Esk	Archer, The Hon. R.C.	1986
Tamar	Coates, The Hon. J.A.	1989
West Devon	Hiscutt, The Hon. H.J.	1989
Westmorland	Chellis, The Hon. D.O.	1991

(*a*) Leader for the Government.
(*b*) Endorsed by the Australian Labor Party; all other members are Independents.
(*c*) Deputy Leader for the Government.

Officers of the Legislative Council

President — The Hon. A. Broadby
Chairman of Committees — The Hon. G. Shaw
Deputy Chairman of Committees — The Hon. R. Hope
Second Deputy Chairman of Committees — The Hon. P. McKay
Clerk — Mr. A. Shaw
Clerk Assistant and Usher of the Black Rod — Mr. G. Histed.



Councillors Elected 1985



D. Chellis



C. Batt



R. Hope

Legislative Council Elections, 1985

Primary votes

Westmorland

D. Chellis	4 297
P. Richardson	2 681
G. Carr	2 115
G. Beams	1 506
B. Fitch	1 404

Derwent

C. Batt	8 729
A. Hookway	2 095

Meander

R. Hope — elected unopposed.



A Broadby, President

3.3.6 Departments

The system of responsible government in Tasmania requires that the executive power of the State shall be exercised by the Cabinet; in exercising this power, the ministers of the Cabinet are held responsible for the actions and administration of government departments and other governmental authorities which have been created to put into practice the laws made by parliament, to give effect to the decisions of the ministry, and to advise the ministry on matters of policy.

3.9 Ministers, Portfolios and Responsibilities as at 28 October 1985

Premier, Treasurer, Minister for State Development, Minister for Energy and Minister for Forests		
The Hon. R.T. Gray	Department of the Premier and Cabinet Audit Department The Ombudsman Treasury Department	Hydro-Electric Commission Tasmanian Development Authority The Forestry Commission
Deputy Premier, Attorney-General, Minister for Tourism, Minister for Industrial Relations and Minister for Racing and Gaming		
The Hon. G.A. Pearsall	Law Department — Prisons Division Registrar-General's Division Corporate Affairs Division Department of Tourism Department of Labour and Industry Public Trust Office	Supreme Court and Sheriff's Department Solicitor-General Parts V and VI of the *Public Service Act* 1973 Racing Directorate Gaming Commission Electoral Department
Minister for Education, Minister for Lands and Minister for National Parks		
The Hon. R.J. Beswick	Education Department Council of Advanced Education State Library University of Tasmania Apprenticeship Commission	Museum and Art Gallery Tasmanian Arts Advisory Board Lands Department National Parks and Wildlife Service
Minister for Primary Industry, Minister for Main Roads, Minister for Water Resources and Minister for Local Government		
The Hon. I.M. Braid	Department of Agriculture Department of Main Roads Rivers and Water Supply Commission Hobart Regional Water Board North-West Regional Water Authority Division of Municipal Planning	Town and Country Planning Commission Dairy Industry Authority Egg Marketing Board Tasmanian Grain Elevators Board Tasmanian Herd Improvement Organisation
Minister for Health, Minister for Community Welfare and the Elderly, Minister for Ethnic Affairs		
The Hon. T.J. Cleary	Alcohol and Drug Dependency Board Department of Health Services Mental Health Services Commission	Division of Handicapped Persons' Services Department for Community Welfare Multicultural Affairs Office
Minister for Construction, Minister for the Environment, Minister for Administrative Services and Minister for Licensing		
The Hon. G.B. Davis	Department of Construction Department of the Environment Licensing Board	Government Printing Office Supply and Tender Department Royal Botanical Gardens
Minister for Transport, Minister for Mines, Minister for Sea Fisheries, Minister for Police and Emergency Services, Minister for Road Safety and Minister for Public Administration		
The Hon. F.R. Groom	Transport Tasmania Mines Department Department of Sea Fisheries Police Department Metropolitan Transport Trust State Emergency Service	Tasmanian Fire Service Division of Road Safety Public Service Board Department (with the exception of Parts V and VI of the *Public Service Act*)
Minister for Small Business, Minister for Housing, Minister for Inland Fisheries, Minister for Consumer Affairs Minister for Sport and Recreation		
The Hon. B.A. Lyons	Department of Sport and Recreation Housing Department Inland Fisheries Commission Tasmanian Government Insurance Office	Motor Accidents Insurance Board Premiums Board Consumer Affairs Council

State Government Departments and Officials *(a)*

Agricultural Department, Marine Board Building, 1 Franklin Wharf, Hobart. *Tel.* 30 8022.
Director: P.J. Fountain

Apprenticeship Commission, 24 Murray Street, Hobart. *Tel.* 30 8011. *President:* D.G.D. Morrow

Audit Department, TGIO Building, 144 Macquarie Street, Hobart. *Tel.* 30 8011.
Auditor-General: D.E. Kirby

Community Welfare, Department for, 12 Murray Street, Hobart. *Tel.* 30 8011.
Director of Community Welfare: D.W. Daniels

Construction, Department of, 10 Murray Street, Hobart. *Tel.* 30 8033. *Director:* B. Davis

Consumer Affairs Council, 25 Davey Street, Hobart. *Tel.* 30 8011. *Secretary:* J. Cliffe-Hickling

Council of Advanced Eucation, Newnham Drive, Newnham. *Tel.* 003 26 0201.
Chairman of Council: E.A. Rouse

Education Department, 116 Bathurst Street, Hobart. *Tel.* 30 8022. *Director-General:* K. Axton

Electoral Department, TGIO Building, 144 Macquarie Street, Hobart. *Tel.* 30 8011.
Chief Electoral Officer: K.F. Febey

Environment, Department of the, Kirksway House, Kirksway Place, Battery Point. *Tel.* 30 8033.
Acting Director: B.O. Healey

Forestry Commission, 199 Macquarie Street, Hobart. *Tel.* 30 8033. *Chief Commissioner:* J.R. Quick

Gaming Commission, 144 Macquarie Street, Hobart. *Tel.* 30 8011.
Commissioner for Gaming: P.E.S. Horne

Government Printing Office, 2 Salamanca Place, Hobart. *Tel.* 30 8033.
Government Printer: A.B. Caudell

Health Services, Department of, Cnr Davey and Murray Streets, Hobart. *Tel.* 30 8022.
Director-General of Health Services: Dr G. Mackay-Smith

Hobart Regional Water Board, 183 Macquarie Street, Hobart. *Tel.* 30 8033. *Chairman:* D.G. Schaffner

Housing, Department of, Farley Street, Glenorchy. *Tel.* 74 0101. *Director-General:* C.A. Sproule

Hydro-Electric Commission, 4–16 Elizabeth Street, Hobart. *Tel.* 30 1101. *Commissioner:* J.R. Ashton

Inland Fisheries Commission, 127 Davey Street, Hobart. *Tel.* 23 6622. *Commissioner:* Dr R.D. Sloane

Labour and Industry, Department of, 81–89 Brisbane Street, Hobart. *Tel.* 30 8011.
Seretary for Labour: G. Urquhart

Lands Department, 134 Macquarie Street, Hobart. *Tel.* 30 8033.
Director-General of Lands: R.H. Annells

Law Department, Savings Bank of Tasmania Building, 39 Murray Street, Hobart. *Tel.* 30 8022.
Secretary: J.A. Ramsay

Corporate Affairs Division, Cnr Salamanca Place and Gladstone Street, Hobart. *Tel.* 30 8022.
Commissioner for Corporate Affairs: R.J. McManus

Crown-Solicitor's Division, Savings Bank of Tasmania Building, 39 Murray Street, Hobart.
Tel. 30 8022. *Crown Solicitor:* B.H. Burkett

Prisons Division, East Derwent Highway, Risdon. *Tel.* 43 8022. *Controller of Prisons:* H.J. Howe

Registrar-General's Division, 134 Macquarie Street, Hobart. *Tel.* 30 8011.
Registrar-General and Recorder of Titles: E.R. Thorpe

Solicitor-General, Savings Bank of Tasmania Building, 39 Murray Street, Hobart. *Tel.* 30 8022.
Solicitor-General: C.R. Wright.

Licensing Board of Tasmania, Henty House, Civic Square, Launceston. *Tel.* 003 32 2261.
Commissioner for Licensing: R.B. Middleton

Local Government Office, 30 Davey Street, Hobart. *Tel.* 30 8011.
Director of Local Government: D.B. Shirley

Main Roads, Department of, 10 Murray Street, Hobart. *Tel.* 30 8033.
Director of Main Roads: L.J. Baily

continued

State Government Departments and Officials — *continued*

Mental Health Services Commission, 141 Hampden Road, Battery Point. *Tel.* 30 8022.
Chairman and Medical Commissioner: Dr. J.F.H. Tooth

Metropolitan Transport Trust, 49 Macquarie Street, Hobart. *Tel.* 38 3232.
Chairman: G.E.C. McKercher

Mines Department, Cnr Bligh Street and Gordon's Hill Road, Rosny Park. *Tel.* 30 8033.
Director: H. Murchie

National Parks and Wildlife Service, 16 Magnet Court, Sandy Bay. *Tel.* 30 8033. *Director:* P. Murrell

Office of Parliamentary Counsel, AMP Building, 80 Collins Street, Hobart. *Tel.* 30 8011.
Parliamentary Counsel: J. Smith

Office of the Ombudsman, 23 Kirksway Place, Battery Point. *Tel.* 34 9200.
Acting Ombudsman: M.J. Dixon

Parliament, State, Murray Street, Hobart. *Tel.* 30 8011. *Clerk of Legislative Council*: A.J. Shaw
Clerk of House of Assembly: P.T. Mackay

Police Department, 80 Elizabeth Street, Hobart. *Tel.* 38 1101. *Commissioner*: M.J. Robinson

Premier and Cabinet, Department of the, Executive Building, Franklin Square, Hobart. *Tel.* 30 8011.
Secretary: J.O. Green

Public Service Arbitrator, Savings Bank of Tasmania Building, 39 Murray Street, Hobart. *Tel.* 30 8011.
Arbitrator: R.S.J. Valentine

Public Service Board Department, TGIO Building, 144 Macquarie Street, Hobart, *Tel.* 30 8011.
Chairman: A.M. Cornish

Public Trust Office, 446 Elizabeth Street, Hobart. *Tel.* 30 8011. *Public Trustee*: W.D. Craig

Rivers and Water Supply Commission, Marine Board Building, 1 Franklin Wharf, Hobart. *Tel.* 30 8033.
Chairman: D.G. Schaffner

Sea Fisheries, Department of, 23 Old Wharf, Hobart. *Tel.* 30 8022. *Director:* M.A. Wilson

State Emergency Service, 83 Melville Street, Hobart. *Tel.* 30 8011. *Director:* M.J. Robinson

State Fire Commission, 79 Melville Street, Hobart. *Tel.* 30 8033. *Commissioner:* J.D. Stewart

State Library of Tasmania, 91 Murray Street, Hobart. *Tel.* 30 8033. *State Librarian:* W.L. Brown

Supply and Tender Department, Castray Esplanade, Hobart. *Tel.* 30 8033. *Manager:* D.D. Wallace

Supreme Court and Sherriff's Department, Salamanca Place, Hobart. *Tel.* 30 8022. *Secretary:* J. Dale

Tasmanian Dairy Industry Authority, PO Box 976, Launceston. *Tel.* 003 31 9666.
Chairman: B.J. Smithies

Tasmanian Government Insurance Office, 144–148 Macquarie Street, Hobart. *Tel.* 30 8011.
General Manager: A.L. Eiszele

Tasmanian Grain Elevators Board, 1 Castray Esplanade, Hobart. *Tel.* 23 2948.
Chairman/Manager: N.S.S. Bridge

Tasmanian Industrial Commission: 448 Elizabeth Street, North Hobart. *Tel.* 30 2918.
President: L.A. Koerbin

Tasmanian Museum and Art Gallery, 5 Argyle Street, Hobart. *Tel.* 23 2696. *Director:* D.R. Gregg

Tasmanian Racing Directorate, Public Buildings, St John Street, Launceston. *Tel.* 003 32 2450.
Director: K. Pearce

Totalizator Agency Board, 28 Davey Street, Hobart. *Tel.* 34 7744. *Chairman:* L.N.P. Cox

Tourism, Department of, Marine Board Building, 1 Franklin Square, Hobart. *Tel.* 30 8011.
Director: G.J. Dean

Town and Country Planning Commission, 30 Davey Street, Hobart. *Tel.* 30 8011.
Commissioner: K. Tyler

Transport Tasmania, 1 Collins Street, Hobart. *Tel.* 38 9201. *Commissioner:* R.W.J. Morris

Treasury Department, Treasury Building, Murray Street, Hobart. *Tel.* 30 8011.
Under Treasurer: I.G. Inglis

(a) As at 1 July 1985.
NOTE: All principal offices shown above are located in the 002 STD area unless otherwise indicated.

3.4 ACTS OF STATE PARLIAMENT

3.10 Summary of State Acts, 1985

Act no.	*Short title (a)*	*Summary*
1	Police Offences	Tattooing of persons under the age of 18 years.
2	Supreme Court Civil Procedures	Recovery of interest on debts.
3	Coroners	Various amendments.
4	Prison	Appointment, powers and duties of Director and other officers.
5	Corrective Services (miscellaneous amendments)	Amends certain enactments consequential upon the enactment of the *Prison Amendment Act* 1985.
6	Court of Requests (Small Claims Division)	Establishes a small claims division of each court of requests, to provide for the constitution of each of those divisions by one person, to be known as the Special Commissioner, to provide for the hearing and determination of certain claims by the Special Commissioner, and to provide for incidental matters.
7	Electoral (consequential amendments)	Amends the *Hospitals Act* 1918, the *Constitution Act* 1934, and the *Local Government Act* 1962 consequential upon the enactment of the *Electoral Act* 1985.
8	Tasmanian State Service	Makes certain amendments consequential upon the enactment of the Tasmanian *State Service Act* 1984.
9	Justices	Domestic restraint orders.
10	Local Government (rates and charges) (consequential amendments)	Amends certain Acts, including the *Hobart Corporation Act*, 1963, and the *Launceston Corporation Act*, 1963, consequential upon the enactment of the *Local Government Amendment (Rates and Charges) Act* 1985.
11	Royal Tasmanian Society for the Blind and Deaf	Provides for the validation of certain elections of members of the Board of Management of the Royal Tasmanian Society for the Blind and Deaf purported to be held under the *Royal Tasmanian Society for the Blind and Deaf Act* 1963 and for the validation of related matters, provides for the vesting in a company incorporated under the Companies (Tasmania) Code of the property of the Royal Tasmanian Society for the Blind and Deaf (being the society the incorporation of which is continued by that Act) and for the dissolution of that Society and that Board, and to repeal that Act.
12	Constitution	Assembly Divisions.
13	Local Courts	Amends the *Local Courts Act* 1896 as a consequence of the enactment of the *Court of Requests (Small Claims Division) Act* 1985.
14	Tasmanian State Service (Court of Requests (Small Claims Division) Amendments)	Amendments consequential upon the enactment of the Tasmanian *State Service Act* 1984.
15	Law of Animals	Animals straying on to highway.
16	Trades Unions	Regulations as to registration.
17	Criminal Code	Unlawfully setting fire to crops, forest, moorlands, peat, etc.
18	Trustee Banks	Amends and consolidates the law relating to trustee banks and to amend the *Companies (Application of Laws) Act* 1982.
19	Registration of Births	Amendments concerning birth registers in relation to adopted persons.
20	Marriages Registration	Registration of marriages, amends the *Marriages Registration Act* 1962.
21	Evidence	Amends the *Evidence Act* 1910.
22	Retirement Benefits	Various amendments.
23	Police Regulation	Constitution of the Board.
24	Environment Protection	Moving sources of pollution.
25	Racing	Power of Directorate to borrow.

continued

Summary of State Acts, 1985 — *continued*

Act no.	*Short title (a)*	*Summary*
26	Loan Fund Supply 1985–86	Applies out of the Loan Fund a sum for the service of the year ending on 30 June, 1986.
27	Consolidated Revenue Fund Supply 1985–86	Applies out of the Consolidated Revenue a sum for the service of the year ending on 30 June, 1986.
28	Local Government Amendment (Rates and Charges)	Rates and charges amendments and validates certain acts of corporations and municipalities.
29	Local Government (City of Launceston Reorganization)	Provides for the extension of the city of Launceston by the inclusion within the boundaries of that city of the muncipal districts of the municipalities of St Leonards and Lilydale and for the division of that extended city into wards and to provide for matters consequential on the extension of that city and its division into wards, including the appointment of a special commissioner to administer that extended city for a limited period and the holding of the first elections of alderman for the wards of that city.
30	Launceston Corporation	Amends the *Launceston Corporation Act* 1963 consequential on the enactment of the *Local Government (City of Launceston Reorganization) Act* 1985 and in relation to committees of the council of the city of Launceston.
31	Local Government (City of Launceston Reorganization) Consequential Amendments	Amends certain enactments consequential on the enactment of the *Local Government (City of Launceston Reorganization) Act* 1985.
32	Crown Lands (Miscellaneous Provisions)	Provides for the extinguishment of rights of passage over sections of certain highways in the city of Hobart, the revocation of the vesting of part of the Queen's Domain, the revesting of certain land in the Crown and other related matters.
33	International Hotel Development	Provides for matters necessary and incidental to the development and establishment of an international hotel in Hobart.
34	Ambulance Service	Relates to fees for Ambulance services.
35	Roads and Jetties	Powers and functions of Minister in respect of certain Commonwealth Acts and the appointment and employment of employees by the Minister.
36	Housing Agreement	Approve the execution by the State of an agreement between the Commonwealth and the States in respect of rental housing assistance and home purchase assistance and to make provision for incidental matters.
37	The Mount Lyell Mining and Railway Company Limited (Continuation of Operations)	Authorises the Treasurer to issue out of Consolidated Revenue an amount to be paid to The Mount Lyell Mining and Railway Company Limited for the purpose of ensuring the deferral of closure of the Mount Lyell mine.
38	Advanced Education	Various amendments.
39	Stamp Duties	Various amendments.
40	Acts Interpretation	Various amendments.
41	Parliamentary Superannuation (Special Provision)	Makes special provision for the payment into the Parliamentary Superannuation Fund established under the Parliamentary *Superannuation Act* 1973 of an annual amount in respect of the financial year ending on 30 June, 1985.
42	Farm Water, Development	Provides for the making of loans to assist in the development of water resources for use on farms and makes provision for incidental matters.
43	Motor Vehicles Taxation	Exemptions.
44	Constitutional Convention	Relates to the Joint Resolution of both Houses of Parliament Agreed to on 17 April, 1985.
45	Motor Accidents (Liabilities and Compensation)	Liability to pay scheduled benefits.
46	Electoral	Provides for the holding of elections to elect persons as members of the Tasmanian Parliament, to regulate the conduct of those elections, provides for the enrolment of electors for the purposes of those elections, repeals the *Electoral Act* 1907 and other enactments, and provides for related matters.

continued

Summary of State Acts, 1985 — *continued*

Act no.	*Short title (a)*	*Summary*
47	Public Service	Delegation by an Arbitrator.
48	Forest Practices	Ensures that all forest practices are conducted in accordance with the Forest Practices Code, provides for the issue of that Code, provides for the creation of private timber reserves, provides for the constitution of the Forest Practices Tribunal, and provides for incidental and consequential matters.
49	Forest Practices (Miscellaneous Amendments)	Amends certain enactments in consequence of the enactment of the *Forest Practices Act* 1985.
50	National Crime Authority (State Provisions)	Makes provision for the operation of the National Crime Authority in Tasmania.
51	Statute Law Revision	Revises the statute law of the State by repealing spent legislation, by correcting errors, and by altering out-of-date references.
52	Trustee	Authorized investments.
53	Salt-water Salmonid Culture	Provides for the approval of agreements relating to the development in Tasmania of an industry consisting of the cultivation of salmon and trout in salt water and provides for the funding of the share of the Government of Tasmania in the development of that industry.
54	Building Societies	Relates to the powers and objects of a permanent building society and power to loan money on mortgage.
55	Tasmanian Development	Various amendments.
56	Closer Settlement	The source of funds for advances.
57	King and Flinders Islands (Power) Financial Assistance	The source of funds for loans.
58	Primary Producers' Relief	The source of funds for loans.
59	Tasmanian Public Finance Corporation	Finance for public purposes.
60	Wheat Marketing	Regulates the marketing of wheat and provides for related matters.
61	Tasmanian State Service	Various amendments.
62	Tasmanian State Service (Transitional Provisions)	Amends the *Tasmanian State Service (Transitional Provisions) Act* 1984.
63	Tasmanian State Service (Miscellaneous Amendments)	Amends the *Tasmanian State Service (Miscellaneous Amendments) Act* 1984.
64	Trustee Companies	Various amendments.
65	Trustee (No. 2)	Authorized investments.
66	Criminal Process (Identification and Search Procedures)	The photographing and fingerprinting of persons in lawful custody.
67	Classification of Publications	Classified films containing advertisements for other films.
68	Water	The suspension and removal of members of the Commission under the *Water Act* 1957.
69	Tasmanian Symphony Orchestra (Financial Assistance)	Extends the period of State contribution for support of the orchestra.
70	North West Regional Water	Establishment of North West Regional Water Authority, removal of members of the Authority, proceedings of the Authority, power of Minister to give a statement of policy objectives to the Authority, and exercise of powers of Authority and performance of its functions subject to a statement of policy objectives by the Minister.
71	Noxious Insects	Defines 'noxious mollusc' and inserts the term after 'noxious insect' wherever occurring.
72	Fisheries Development	Amends *Tasmanian State Service (Miscellaneous Amendments) Act* 1984 and the *Tasmanian State Service (Transitional Provisions) Act* 1984.
73	Civil Process	Simplifies the commencement of civil proceedings in the Supreme Court.

continued

Summary of State Acts, 1985 — *continued*

Act no.	*Short title (a)*	*Summary*
74	Physiotherapists' Registration	Alters the composition of the Board, provides for the register of physiotherapists, the removal from register for misconduct, the disciplinary powers of Board in respect of an approved physiotherapy services company; the physiotherapy services company must obtain operating approval from the Board, the appeal provisions for approval refusal, the records to be kept by physiotherapy services company and the personal liability of registered physiotherapists in respect of physiotherapy services authorized or performed by them on behalf of physiotherapy services company.
75	King and Flinders Islands (Power) Financial Assistance	Provides for alterations to the terms and conditions of loans.
76	Public Trust office	Alters the amounts relating to estates, relates to special investments outside the common fund, and establishes priority of claims when assets are insufficient.
77	Wills	Provides for the revocation of wills by the dissolution of marriage and a will in contemplation of a dissolution of marriage is not revoked by that dissolution.
78	Conveyancing And Law of Property	Provides for the power of a Court to order the partition of chattels.
79	Tasmanian Harness Racing Board	Amends the functions of the Board and reporting to the Minister annually.
80	Local Government Amendment (Building Regulations Board)	Provisions relating to the Building Regulations Board, its membership, and meetings.
81	Environment Protection	Relates to licences.
82	Public Servants' Retiring and Death Allowances	Relates to the application and non-application of the Act, and gives an interpretation of 'salary'.
83	Tasmanian State Service (Miscellaneous Amendments)	Amends schedule one in relation to the Retirement Benefits Act 1982.
84	Groundwater	Provides for the assessment, conservation, and development of, and the prevention of pollution of, groundwater in Tasmania, for the control and management of its utilization and quality, and for other purposes.
85	Water	Relates to the water rights of the Commission and the malicious abstraction of groundwater.
86	Local Government	Relates to the Municipal Commission, the Council Clerks' Board and by-laws.
87	Seeds	Regulates and controls the production, supply, and sale of seeds, to provide for the testing of seeds, and to repeal the *Seeds Act* 1950.
88	Fisheries	Relates to the powers of the Minister, the annual report, consultation and co-operation with police, the Sea Fisheries Research Account, the fishfarm development committee, forfeiture of boats, disposal of perishable articles.
89	Racing and Gaming	Relates to totalizer licences and the expiry of the Act.
90	Sunday Observance	Relates to Sunday work.
91	Local Government Amendment (Development and Building)	Various amendments.
92	Consolidated Revenue Fund Appropriation 1985–1986	Issue and application of funds from Consolidated Revenue.
93	Loan Fund Appropriation 1985–1986	Issue and application of money from the Loan Fund.
94	Stamp Duties	Relates to evasion of duty, scale and rates of duty, instruments exempt from duty and the refund of certain duty.
95	Land Tax	Prescribes the scales of land tax in respect of various classes of land.
96	Pay-Roll Tax	Provides deductions for small businesses and the refund or rebate of pay-roll tax on annual adjustments.
97	Consolidated Revenue Fund Supplementary Appropriation	Provides for the issue of a further sum from Consolidated Revenue.
98	Electoral	Miscellaneous amendments.

continued

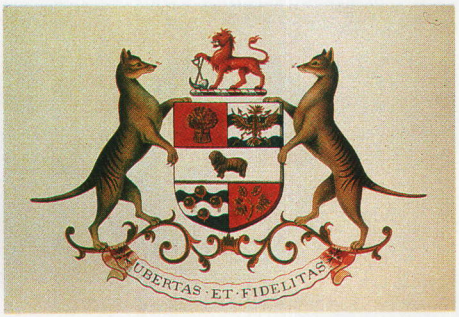
Summary of State Acts, 1985 — *continued*

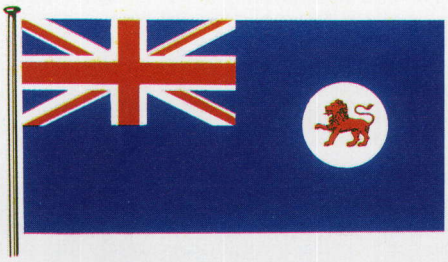
Act no.	*Short title (a)*	*Summary*
99	Australia Acts (Request)	Provides for constitutiuonal arrangements affecting the Commonwealth and the States to be brought into conformity with the status of the Commonwealth of Australia sa a sovereign, independent, and federal nation and repeals the Constitutional Powers (Tasmania) Act 1979.
100	Police Offices	Prohibits setting of steel-jawed traps in certain areas.
101	Traffic	Regulations and their application to the Crown.
102	Traffic	Membership of the Public Vehicles Licensing Appeal Tribunal.
103	Local Courts	Relates to the duties of the bailiff, fees, rules of practice and form five.
104	Hydro-Electric Commission (Pieman River Power Development)	Increases the expenses of construction.
105	Parliamentary Superannuation	Various amendments.
106	Parliamentary Retiring Benefits	Establishes a superannuation scheme for persons who become members of Parliament after the commencement of this Act.
107	Industrial and Commercial Training	Provides for industrial and commercial training and other matters, repeals the Apprentices Act 1942 and amends the Tasmanian State Service Act 1984.
108	Licensing	Details of special wine producers' licences, and other provisions.
109	Licensing	Relates to transfer of licenses, inspection of licensed premises by inspectors, appeals against the refusal to grant application, power of Treasurer and Commissioner to disclose information and amendments to *Licensing Amendment Act* 1984 and *Tasmanian State Service (Miscellaneous Amendments) Act* 1984.
110	Environment Protection	Amends licence to transport waste.
111	Emergency Services	Relates to the State Disaster Committee and its functions, the State Disaster Executive and its functions, declaration of state of emergency, declaration of state of disaster, powers over the public, duties and powers of municipalities with respect to counter-disaster measures and workers compensation payable to or in respect of certain persons.
112	Tasmanian State Service	Relates to the Heads of Agencies and contract employee on the unattached list.
113	Tsuneichi Fujii Fellowship Trust	Establishes a Trust for educational, cultural, scientific, trade and business exchange as well as participation in fairs and expositions and the interchange of publications and products.
114	Meat Hygiene	Controls and regulates the operation of slaughtering works, poultry abattoirs, game meat processing works, and pet food works, regulate the standards of hygiene and sanitation at those works and regulates the quality of meat, products, and pet food.
115	Local Government	Relates to the Meat Hygiene Act 1985.
116	Public Health	Limits the powers of inspectors within the meaning of the Meat Hygiene Act 1985.
117	Environment Protection	Amendment relating to the Meat Hygiene Act 1985.
118	Human Tissue	Relates to the removal of human tissue for transplantation.
119	Common Law Procedure	Amends the Supreme Court Civil Procedure Act 1932 relating to the miscellaneous rules of law.
120	Prison	Gives power to the Governor to declare prisons for certain exclusive or other uses and adds to the duties of prison officers.
121	Probation of Offenders	Amends the Probation Officers' reports, probation orders, breaches of probation orders, effects on probation order of imprisonment for an unrelated offence, power to make community service orders, effect of community service orders, and the operation and enforcement of community service orders.
122	Status of Children	The presumption of parenthood and recognition of paternity and the presumption of parenthood as a result of fertilization procedures.
123	Racing	Inserts sections relating to the Tasmanian Thoroughbred Racing Council.
124	Straits Island Shipping Services Subsidies	Relates to the maximum rates of subsidy.
125	Industrial Relations	Extends the period of provisional registration to two years.
126	Education	Repeals Part II C of the principal Act relating to recreation.

3.5 STATE EMBLEMS

Coat-of-arms

The Tasmanian coat-of-arms features two Tasmanian Tigers supporting a shield. Contained within the shield are five symbols: a ram, a sheaf of wheat, apples, hops (representing pastoral and agricultural activities) and a thunderbolt (representing hydro-electric development). Above the shield is a lion 'passant' (which probably originated from the British Royal Family). A pick and shovel, representative of the mining industry, appear in front of the lion. The motto 'ubertas-et-fidelitas' interpreted as 'Fertility and Faithfulness' completes the coat-of-arms which was promulgated in 1919.





Flag

On 25 September 1876 the Governor of Tasmania decreed that the distinguishing flag for vessels employed by the Government of Tasmania shall be a blue ensign with a red lion on a white shield superimposed. The flag was subsequently adopted for general State Government use, but it was not until 3 December 1975 that the design was officially gazetted. There is no record of the reason for using the lion 'passant' on the State flag. Lions have featured in British heraldry for centuries; this may have been a factor influencing the choice. The Union Jack occupies the upper quarter next to the staff.

Floral Emblem

The Tasmanian Blue Gum, *Eucalyptus globulus* Labill, was proclaimed as the floral emblem of the State of Tasmania on 27 November 1962. In favourable situations, the Tasmanian Blue Gum will grow to approximately 60 metres in height. The trunk is smooth and greyish-white in the upper part but often rough and deeply furrowed at the base. The name 'Blue Gum' refers to the appearance of the juvenile leaves which are glaucous (bluish-grey and waxy), 6–15 cm long, almost oblong but bluntly pointed at the tip and rounded at the base, and borne in opposited pairs on square stems. The leaves of the mature tree are green and glossy, 15–36 cm long, usually sickle-shaped and borne alternatively on rounded stems. The flowers are larger than those of other Tasmanian eucalypts.



3.6 LOCAL GOVERNMENT

Local Government in Tasmania is administered by the councils of 43 municipalities and the cities of Hobart, Launceston, Glenorchy and Devonport. Each council is responsible for the provision of many of the services necessary for the organisation and welfare of the community which it represents.

In Tasmania there are only two categories of local government, a municipality or a city. Before a municipality can petition to become a city, it must have had, for five years before the petition, an average population of not less than 20 000.

For any of a number of reasons, the Minister administering the *Local Government Act* may consider it necessary to recommend suspension of the elected councillors and the appointment of a commission, or in certain cases, an administrator to carry on municipal government in a particular municipality.

A councillor must be an elector of, and either reside or carry on business in, the muncipality. Councils may comprise six, nine, 12 or 15 councillors. The warden, deputy warden and treasurer are elected by the council members on an annual basis. The electors of the City of Hobart elect the Lord Mayor and in Glenorchy and Devonport the electors elect the Mayor. However, the Mayor of Launceston is elected by council members. The office of warden is comparable with that of the mayor of a city or the president of a shire in other States.

3.6.1 Local Government Review, 1984–85 *by T. O'Byrne*

Local government in Tasmania has long been regarded as a traditional power base within our island community. As a highly regionalised State with three major city centres in the North West, North and South, and a decentralised urban-rural population sprawl, local government has often evolved in many municipalities as a localised community centre as much as our third tier of government. The business side of local government has generally been to provide parks, recreation and sporting facilities within its boundaries, with town planning, sewerage, water, rubbish disposal and public health services offered by levying rates and charges and receiving other revenues from State and Federal tiers of government. Yet despite a traditional business role that differs according to size and finances, Tasmanian local government went through quite a metamorphosis in 1985.

As the emphasis moved increasingly towards prudent financial management and reduction of services overlap, a number of the 47 councils around the State were scrutinised with a view to either amalgamation or plans for some form of shared infrastructure management. Three councils were merged to form one expanded new municipality in Northern Tasmania, and steps were taken to merge two more on the West Coast. Other mergers were also suggested for councils on the North West Coast, in the Midlands stretch of five councils between Hobart and Launceston, between councils in the Huon Valley in the south of the State and between some of the more centralised Hobart metropolitan councils. But perhaps the most important single event in local government during the year was the end to an exhaustive amalgamation of three Northern Tasmanian municipalities — St Leonards, Lilydale and Launceston — into the State's largest single council, the Greater Launceston Council.

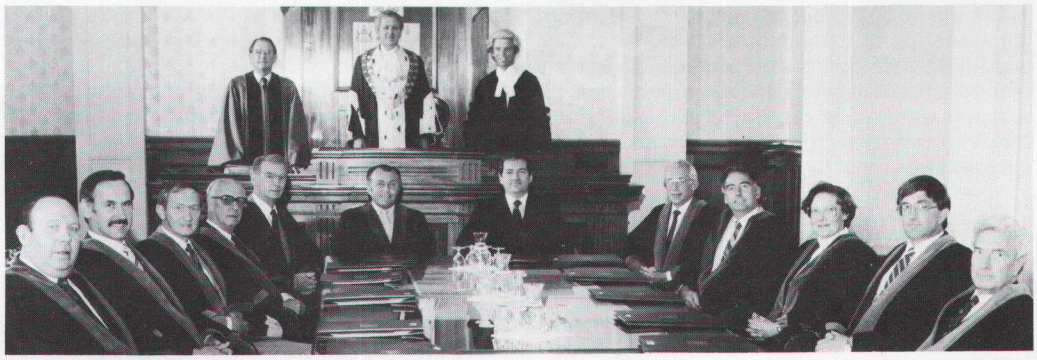
Attempts spanning several decades had been made to merge a number of the municipalities in the Tamar Valley region, with the most recent of several reports recommending change being the Tasmanian Legislative Council's select committee report on the matter that was tabled in October, 1983. (See the 1984 *Tasmanian Year Book*.) Trouble had already erupted in the region when Lilydale ratepayers petitioned and ousted their elected Warden and Council and the State Government installed a three-man commission chaired by a former Launceston Mayor, Mr Clarry Pryor.

The Minister for Local Government, Mr Ian Braid, introduced the *Launceston City (Reorganization) Bill* 1985 into State Parliament in April to dismantle the three municipal organs and establish a temporary Special Commissioner to run the new 60 000-strong municipality until elections were held. The legislation was opposed valiantly as it progressed through both Houses of Parliament by members on the St Leonards Council, who petitioned and lobbied MPs to defeat the bill. Once the bill had been passed the St Leonards Council sent a telegram to the Queen unsuccessfully calling on the Governor of Tasmania, Sir James Plimsoll, to stop giving the legislation Royal Assent.

The new Commissioner for Launceston, Mr T.W. Deutschmann, was a former administrator with the Sunshine City Council in Victoria, and ran the Council until September 21 when the new 12-member Council took control. A call by the Legislative Council to extend the term of the Special Commissioner from 120 days out to 18 months failed when the Government did not accept the plan.

The inaugural elections to choose the aldermen were held on August 31, with three aldermen elected in an above-average optional voter turnout from each of four wards — North, South, East and Central. This first election was arranged so as to enable a rotating election system of three-year terms to be phased in over three years with one alderman from each ward standing for re-election every March.

The first Mayor of the expanded city was a former Launceston City Council Mayor and



Seated, from left: Ald. Fitch, Beams, Stacpoole, Barnard, Shipp, Tsinoglou (Deputy Mayor), Mr D.J. Hawkey (Assistant City Manager), McKendrick, Cramp, Godfrey, Hidding, Roark.
Standing: Rev. M. Ramage (Mayor's Chaplain), Ald. Wing (Mayor), Mr P.R. Jordan (City Manager).

member of the State Upper House, 47-year-old Mr Don Wing MLC (Launceston), who was elected by a majority of the new council. A former Launceston City Council alderman, Mr Ananias 'Jimmy' Tsinoglou, 52, was elected to the job of Deputy Mayor by the aldermen. The 12 successful candidates from a big field of 32 were:

North ward: A former MLC for the seat of Launceston, Mr Ray Shipp, who topped the primary votes for the ward; Dilston businessman Mr John Roark, and State public servant Mrs Janette Godfrey.

Central ward: Mayor Don Wing, who topped the primaries with more than two quotas; his new deputy Mr Tsinoglou, and a third former LCC alderman, Mr Graeme Beams.

East ward: Tasmania Police public relations officer Mr John Cramp topped the poll for the East ward; and former St Leonards Councillors Mr Harry Stacpoole and Mr Basil Fitch.

South ward: Former LCC alderman Mr Robin McKendrick topped the poll, with former ALP Deputy Prime Minister Mr Lance Barnard and Youngtown businessman Mr Marinus 'Rene' Hidding filling the other two positions.

The Launceston amalgamation was seen by most councils in the State as apt warning to lift their performance or face the similar destiny of amalgamation. The Municipal Association of Tasmania, the councils' peak body in the State, moved in the wake of the Launceston amalgamation to have a special authority set up to oversee future inter-council disputes over boundaries or any merger plans. On the North West Coast effort was also concentrated on amalgamation (Penguin and Ulverstone earlier in the year sought a cost analysis on a possible merger), and on the reorganisation of the councils' regional master planning authority. After Devonport on the North West Coast had been granted city status in 1983, the North West Coast town of Burnie petitioned the Governor, Sir James Plimsoll, to be granted similar city status, although a decision was not made. The tiny West Coast town of Gormanston was outlined by the Auditor-General's 1984 report as not big enough to justify its existence as a separate municipality, and in August 1985 it agreed to merge with neighbouring Queenstown under the new name of Lyell.

Some sections of local government in the south of the State also underwent substantial turmoil during 1985, ranging from the Hobart City Council's stand over the construction design of a $50 million international hotel on the waterfront, to the Kingborough Council's move to rezone land destined for a $34 million silicon smelter proposal, to threats of replacing the faction-ridden Clarence Council with an independent commission. Despite overseeing close to $100 million in construction and development in and around Hobart during the year, the Hobart City Council sought independent architectural advice on the initial plans for an 18-storey hotel. It asked for the plans to be re-drawn, and then agreed on a revamped design that met strong disapproval from a local lobby group when the State Parliament passed legislation to bypass local government appeals. The Clarence Council row continued as one councillor was black-banned by the staff for close to a year for recommending staff cuts over any rate increases; a budgeting mistake gave the council a $640 000 surplus despite rate increases for the next financial year by 9 per cent, while two evenly-balanced warring factions threatened to tear the council apart. The Kingborough Council split in a vote to rezone to light industrial land at Electrona being prepared for a heavy silicon smelter industry, although it softened its line in a later council meeting amid fierce lobbying from both camps.

All in all a fascinating year for councils throughout Tasmania, and confident assurance that the changes to local government experienced in 1985 will be reverberated through into coming years. As further rationalisation and unification continues to dominate local government issues, it can only mean a solidification of the role this important third tier of government plays in Tasmania.

3.6.2 Cities and Municipalities

Cities

HOBART: Capital; population 47 650,
Area 80 km².
Lord Mayor: **B. Broadby**
Deputy Lord Mayor: **B. O'Conor**
Aldermen: **B. Broadby, B. O'Conor, R. Excell, D. Plaister, T. Haigh, D. Thomson, B. Fisher, D. Peck, D. Kennedy, A. Hurburgh, G. Yeoland, D. Alty**
Town Clerk: B. Southorn
Meetings: Fourth Monday each month.

LAUNCESTON: Population 62 360,
Area 1 598 km².
Mayor: **D. Wing** Deputy Mayor: **A. Tsinoglou**
Councillors:
North Ward: **R. Shipp, J. Godfrey, J. Roark**
South Ward: **R. McKendrick, L. Barnard, M. Hidding**
East Ward: **J. Cramp, H. Stacpoole, B. Fitch**
West Ward: **D. Wing, A. Tsinoglou, G. Beams**
City Manager: J.D. Yaxley
Meetings:

GLENORCHY: Population 41 550,
Area 120 km².
Mayor: **D. Shields,** Deputy Mayor: **A. Ramsley**
Aldermen:
Central Ward: **T. Dempsey, D. Fall, T. Martin, A. Ramsley**
West Ward: **D. Shields, J. Blackburn, D. Moles, G. Strickland**
East Ward: **N. Lovell, L. Carland, J. Purcey, B. Wills**
City Manager: G. Alomes
Meetings: Every fourth Monday from 1 April 1985.

DEVONPORT: Population 24 840,
Area 120 km².
Mayor: **G. Squibb,** Deputy Mayor: **I. Day**
Aldermen:
Don Ward: **G. Squibb, R. Churcher, B. Dowse**
North Ward: **D. Grant, M. O'Dea, I. Day**
East Ward: **T. Travers, J. Benson, J. Palmer**
Council Clerk: D. Sales
Meetings: Every third Monday of month.

First for Devonport

Devonport has its very own version of the famous 'Grauman's Chinese Theatre in Hollywood'.

Known as 'The Brickworks', it is situated on the landscaped area on the west side of the Mersey River, across from the new exhibition centre, The Showcase of Devonport.

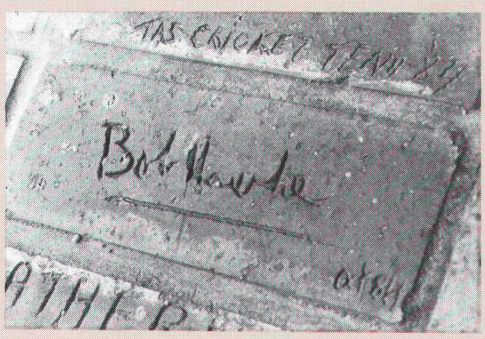
When the project was announced, Devonport Promotions Officer, Claire Cooper said that the big difference would be that everybody would be able to make their 'mark' in cement. 'It is not necessary to be rich and famous to be able to buy one of our bricks, sign it and have it set for evermore in the 'Brickworks'.'

'Soft' bricks are on sale at the Showcase at a cost of $3.50 each. The brick is then signed and dated —with a special metal piece supplied. The brick then goes back to be fired at the kiln and when ready is set into 'the Brickworks' paved area.

The intention is to have every visiting celebrity 'sign a brick'.

Miss Cooper said that the project would provide an interesting tourist attraction for the City. 'All visitors are encouraged to sign', she said. 'However, the community can also be involved, by their own participation and by encouraging visiting friends and relations to sign a brick too', she added.

The 'Brickworks' are easily identified by a specially designed tumbling brick-wall which is being built along side the paved area.



The Prime Minister, Mr. R.J. Hawke was the first visiting celebrity to 'sign a brick' for Devonport's latest attraction. He signed in October 1984. Since then, amongst those to make their mark on history have been the former Federal Opposition Leader Mr. Andrew Peacock, the Tasmanian Premier Mr. Robin Gray, Devonport Mayor Geoff Squibb, West Indian test cricketers Clive Lloyd and Viv Richards, Olympic cyclist Dean Woods, and Tasmania's test cricketer David Boon.

Municipalities

BEACONSFIELD: Population 14 870, Area 640 km². Main town: Beauty Point
Warden: **T. Roach,** Deputy Warden: **B. Manion**
Councillors:
Central Ward: **E. Griffiths, J. Torney, I. Miller**
South Ward: **T. Roach, W. Morris, B. Oldenof**
North Ward: **B. Manion, B. Easther, J. Clark**
Council Clerk: K. Hepburn
Meetings: Second and fourth Tuesdays of month.

BOTHWELL: Population 720, Area 2 610 km².
Main town: Bothwell
Warden: **I. Downie,** Deputy Warden: **M. Brennan**
Councillors:
West Clyde Ward: **M. Brennan, M. Brooks, A. Soggins**
Great Lake Ward: **I. Downie, R. Bowden, H. Edgell**
East Clyde Ward: **R. Archer, P. McShane, D. Hallet**
Council Clerk: A. Crockett
Meetings: First Monday after 20th of each month.

BRIGHTON: Population 11 440, Area 440 km².
Main centre: Bridgewater–Gagebrook
Warden: **D. Von Stieglitz,**
Deputy Warden: **B. Franklin**
Councillors:
Tea Tree Ward: **R. Scott, M. Barwick, B. Franklin**
Bagdad Ward: **D. Von Stieglitz, J. Best, P. Loney**
Broadmarsh Ward: **W. Gunn, P.A. Geard, P.J. Geard,**
Bridgewater Ward: **L. Rainbird, R. Coppleman, S. Crowe**
Council Clerk: G. Dodge
Meetings: Second Thursday of the month.

BRUNY: Population 380, Area 360 km².
Main centre: Alonnah
Warden: **T. Adams,** Deputy Warden: **D. Gregg**
Councillors:
Lennon Ward: **N. Mulcahy, M. Bishop, J. Richards**
Adventure Bay Ward: **W. Smith, P. Adams, B. Bush**
Lunawanna Ward: **P. Hayes, L. Higgins, D. Gregg**
Council Clerk: D. Gluskie
Meetings: Second Monday of month, 7pm.

BURNIE: Population 20 810, Area 620 km².
Warden: **R. Collins,**
Deputy Warden: **A. Hayward**
Councillors:
North Ward: **E. Jacobs, E. Spinks, A. Winter**
South Ward: **R. Collins, A. Hayward, T. Stott**
Stowport Ward: **R. Elphinstone, S. French, G. Starick**
Hampshire Ward: **P. Cains, B. Hodgetts, B. Whiteroad**
Council Clerk: R. Foulkes
Meetings: First and third Monday of each month.

CAMPBELL TOWN: Population 1 520, Area 1 440 km².
Warden: **A. Vaughan,**
Deputy Warden: **J. MacKinnon**
Councillors:
East Ward: **A. Oakley, A. Evans, D. Wickham**
Central Ward: **J. MacKinnon, G. Bishop, H. Skerritt**
West Ward: **A. Vaughan, K. Hedlam, D. Gatenby**
Council Clerk: G. Morgan
Meetings: Second Monday of month.

CIRCULAR HEAD: Population 7 980, Area 4 920 km². Main town: Smithton
Warden: **K. O'Halloran,**
Deputy Warden: **L. Ewington**
Councillors:
Horton Ward: **K. O'Halloran, M. Poke, D. Malley**
Emmett Ward: **J. Suitor, T. Cooper, I. Bessell**
Stanley Ward: **J. Smith, M. House, C. Bishop**
Marrawah Ward: **L. Buckby, B. Quilliam, L. Andrews**
Mowbray Ward: **L. Ewington, G. Hugo, D. Stewart**
Council Clerk: P. Matthews
Meetings: Second Thursday of month.

CLARENCE: Population 46 660, Area 250 km².
Warden: **P. Calvert**, Deputy Warden: **A. Sproule**
Councillors:
Bellerive Ward: **B. Denholm, T. Kregor, I. Barnard**
Cambridge Ward: **P. Parssey, W. Ryan, J. Rogerson**
Lindisfarne Ward: **M. Readett, A. A'Church, R. James**
Sandford Ward: **P. Calvert, A. Sproule, A. Thompson**
Council Clerk: R. Marriott
Meetings: Third Monday of month.

DELORAINE: Population 5 100, Area 2 920 km².
Warden: **L. Earley**, Deputy Warden: **D. Howell**
Councillors:
Central Ward: **J. Blakeney, C. Coates, E. Elliott**
Chudleigh Ward: **A. Cameron, D. Howell, G. Scott**
High Plains Ward: **I. Atkins, L. Earley, J. Lord**
Meander Ward: **E. Chilcott, G. McLlennan, D. Whiteley**
Midhurst Ward: **M. Bennett, G. Cristy, W. Lunson**
Council Clerk: A. Enright
Meetings: Third Monday of month.

ESPERENCE: Population 3 140, Area 6 190 km².
Main town: Geeveston
Warden: **J. Kyle**, Deputy Warden: **P. Padman**
Councillors:
Dover Ward: **J. Casey, G. Norris, N. Wilson**
Geeveston Ward: **P. Pepper, P. Padman, I. Reading**
Liverpool Ward: **H. Mewett, T. Reid, J. Kyle**
Southport Ward: **R. Ludbey, R. Plummer, B. Wallis**
Surges Bay Ward: **J. Webb, B. Hickey, G. Doyle**
Council Clerk: R. Langdon
Meetings: Third Wednesday of month.

EVANDALE: Population 2 130, Area 990 km².
Warden: **V. Berresford**,
Deputy Warden: **D. Bennett**
Councillors:
Evandale Ward: **V. Berresford, W. Leroyd, V. Spencer**
Breadalbane Ward: **D. Bennett, B. Samsom, M. McQueen**
Deddington Ward: **R. Cameron, B. Grubb, B. Therold**
Council Clerk: B. Garwood
Meetings: Second Monday in the month.

FINGAL: Population 2 890, Area 2 730 km².
Warden: **D. Casboult**,
Deputy Warden: **R. McKenzie**
Councillors:
St Marys Ward: **D. Casboult, R. Legge, S. Salter**
Town Ward: **H. Holder, J. Brodribb, R. Saunders**
Tower Hill Ward: **A. Coker, J. Guy, R. McKenzie**
St Pauls Ward: **K. Stagg, D. Crisp, R. Burbury**
Council Clerk: R. Yates
Meetings: Second Monday of month.

FLINDERS: Population 1 120, Area 1 990 km².
Main town: Whitemark
Warden: **P. Blundstone**,
Deputy Warden: **P. Robinson**
Councillors:
North Ward: **A. Foster, L. Mason, C. McQueen**
Central Ward: **J. Luddington, S. Bowman, P. Blundstone**
South Ward: **S. Holloway, J. Parish, P. Robinson**
Council Clerk: K. Worsley
Meetings: Second Tuesday in month.

GEORGE TOWN: Population 7 310,
Area 650 km².
Warden: **G. Sweet**, Deputy Warden: **R. Wallace**
Councillors:
North Ward: **G. Sweet, T. Morgan, L. Fulton**
South Ward: **L. Mooney, J. Osborne, F. Lyons**
Lefroy Ward: **R. Wallace, M. Hetherington, P. Robe**
Pipers River Ward: **R. Bird, H. McCoy, R. Brown**
Council Clerk: L. Young
Meetings: Third Wednesday in month (ordinary).
First Tuesday in month (special).

GLAMORGAN: Population 1 540,
Area 1 540 km². Main town: Swansea
Warden: **R. McKercher**,
Deputy Warden: **E. Bailey**
Councillors:
South Ward: **R. McKercher, A. Graham, P. Morey**
Central Ward: **J. Cotton, M. Gray, R. Johnston**
North Ward: **R. Winspear, E. Bailey, E. Gee**
Council Clerk: K. Cleaver
Meetings: Second Tuesday in month.

GORMANSTON: Population 110,
Area 2 870 km².
Warden: **J. Rowe**, Deputy Warden: **P. Frost**
Councillors:
Ward 1: **J. Rowe, P. Frost, H. Legge**
Ward 2: **B. Snell, N. Bradshaw, P. Batchelor**
Council Clerk: J. Duncombe.

GREEN PONDS: Population 1 050,
Area 420 km². Main town: Kempton
Warden: **A. Bisdee**, Deputy Warden: **H. Lang**
Councillors:
Mountain Ward: **G. McShane, A. Bisdee, C. Batt**
Kempton Ward: **H. Lang, J. Jones, M. Ross**
Constitution Ward: **J. Allen, J. Binning, A. Bantick**
Council Clerk: G. Reid
Meetings: Third Wednesday of month.

HAMILTON: Population 2 480, Area 5 850 km².
Main town: Hamilton
Warden: **R. Johnston**,
Deputy Warden: **G. Ashton-Jones**
Councillors:
South Ward: **J. Jones, C. Parsons, G. Parsons**
Central Ward: **K. Clark, R. Johnston, J. Nickolls**
North Ward: **K. Downie, H. Clark, G. Ashton-Jones**
Council Clerk: V. Bailey
Meetings: Second Wednesday in month.

HUON: Population 4 870, Area 770 km²
Main town: Huonville
Warden: **S. Bell**, Deputy Warden: **A. Eaton**
Councillors:
Woodstock Ward: **S. Bell, G. Stubbings, A. Eaton**
Victoria Ward: **P. Askey-Doran, A. Meyer, N. Baldwin**
Upper Huon Ward: **D. Thomasson, A. Harriss, K. Pitt**
Franklin Ward: **N. Cupit, E. Leaman, I. Cragg**
Council Clerk: G. Knight
Meetings: Second Monday in month.

KENTISH: Population 4 510, Area 1 190 km².
Main town: Sheffield
Warden: **R. Duff**, Deputy Warden: **L. Connors**
Councillors:
Sheffield Ward: **M. Butler, R. Duff, L. Freshney**
Barrington Ward: **S. Easter, O. Wootton, L. Connors**
Railton Ward: **L. Huett, M. Durick, D. Moles**
Rowland Ward: **C. Cox, B. Braid, D. Crosswell**
Wilmot Ward: **S. Charlston, B. Bolbeck, B. Richards**
Council Clerk: G. Atkins
Meetings: First and third Tuesday of month.

KINGBOROUGH: Population 19 200,
Area 350 km². Main centre: Kingston
Warden: **G. Hean**,
Deputy Warden: **C. Waterhouse**
Councillors:
North Ward: **G. Hean, P. Roberts-Thomson, R. Gee**
Central Ward: **B. Wells, L. Ludwig, C. Waterhouse**
South Ward: **C. Shepherd, A. Gerard, G. Milburn**
Council Clerk: M. Doyle
Meetings: Every three weeks from 15 April 1985.

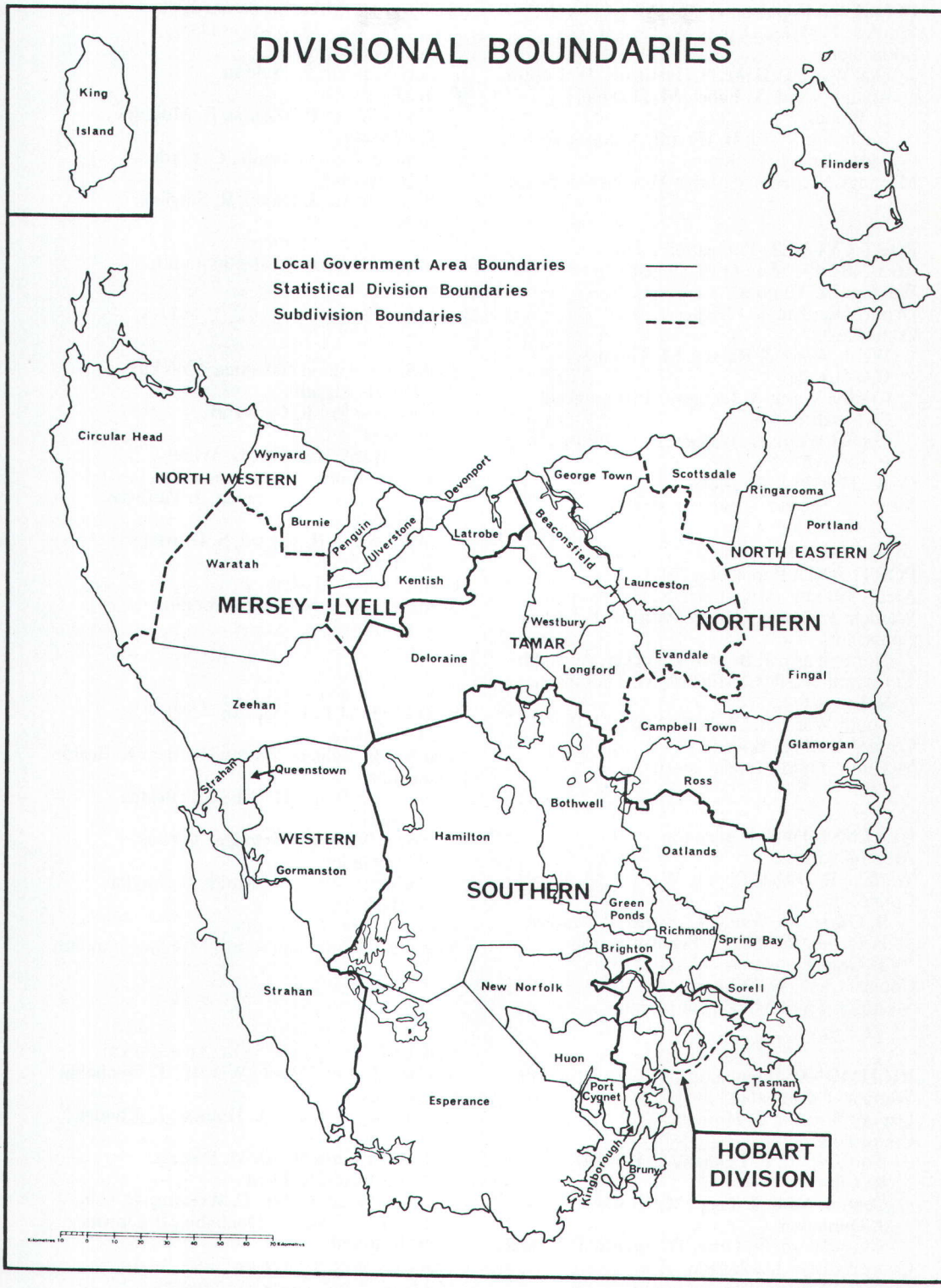
KING ISLAND: Population 2 640,
Area 1 100 km². Main town: Grassy
Warden: **R. Barratt**, Deputy Warden: **B. Barr**
Councillors:
North Ward: **P. Bain, D. Sweeting, D. Bowden**
South Ward: **R. Barratt, H. Cooper, W. Cobbins**
Central Ward: **B. Barr, C. Kemp, R. Jordan**
Council Clerk: M. Klarenbeek
Meetings: Third Monday in month.

LATROBE: Population 5 800, Area 550 km².
Warden: **M. Ford**, Deputy Warden: **R. Dick**
Councillors:
Sherwood Ward: **P. Mackey, H. Jaffray, R. Stone**
Harford Ward: **R. Dick, B. Stewart, D. Acheison**
Sassafras Ward: **R. Brown, M. Ford, R. Campbell**
Council Clerk: G. Cockerill
Meetings: Second Monday in month.

LONGFORD: Population 6 010, Area 1 000 km².
Warden: **M. Walker**, Deputy Warden: **E. Preece**
Councillors
Longford Ward: **M. Walker, J. Robertson, G. Millar**
Perth Ward: **M. Baines, D. Pears, S. Johnson**
Cressy Ward: **E. Preece, R. Bailey, B. Williams**
Council Clerk: B. Viney
Meetings: Second Monday in month.

NEW NORFOLK: Population 9 750,
Area 1 320 km².
Warden: **W. Terry**, Deputy Warden: **A. Pearson**
Councillors:
Town Ward: **G. Martin, H. Howell, P. Dobromilsky**
Molesworth Ward: **P. Binny, R. Holderness-Roddam, K. Gleeson**
Glenfern Ward: **W. Terry, W. Lawrence, E. Crosswell**
Upper Derwent Ward: **J. Murtath, R. Roberts, R. Flakemore**
Lower Derwent Ward: **J. Tribolet, A. Pearson, R. Cox**
Council Clerk: R. Brough
Meetings: Second Wednesday of month.

OATLANDS: Population 2 000, Area 1 540 km²
Warden: **L. Scott**, Deputy Warden: **R. Fish**
Councillors:
Tunnack Ward: **L. Scott, J. Byers, W. Lester**
Oatlands Ward: **T. Raphael, A. Iles, R. Fish**
Tunbridge Ward: **D. Manning, M. Burbury, A. Hall**
Council Clerk: H. Rhee
Meetings: Second Monday in month.


DIVISIONAL BOUNDARIES
King Island
Flinders
Local Government Area Boundaries
Statistical Division Boundaries
Subdivision Boundaries
Circular Head
Wynyard
NORTH WESTERN
Burnie
Penguin
Ulverstone
Devonport
Latrobe
Waratah
Kentish
MERSEY – LYELL
Beaconsfield
George Town
Scottsdale
Ringarooma
Portland
NORTH EASTERN
Launceston
NORTHERN
Westbury
TAMAR
Deloraine
Evandale
Longford
Fingal
Zeehan
Campbell Town
Glamorgan
Queenstown
Strahan
Ross
Bothwell
WESTERN
Hamilton
Oatlands
Gormanston
SOUTHERN
Green Ponds
Richmond
Spring Bay
Brighton
Strahan
New Norfolk
Sorell
Huon
Tasman
Port Cygnet
Esperance
Kingborough
Bruny
HOBART DIVISION

PENGUIN: Population 5 370, Area 430 km².
Warden: **E. Dyke**, Deputy Warden: **R. Gee**
Councillors:
Dial Ward: **E. Dyke, N. Heathcote, W. Cooper**
Rianna Ward: **T. Faber, M. Downie, L. Woods**
Heybridge Ward: **H. Hircutt, A. Jones, R. Gee**
Council Clerk: T. McKenna
Meetings: Second and fourth Mondays of month.

PORT CYGNET: Population 2 370,
Area 240 km². Main town: Cygnet
Warden: **M. Thomas**,
Deputy Warden: **G. Fletcher**
Councillors:
Welsh Ward: **J. Harvey, M. Thomas, G. Glanville**
Cradoc Ward: **A. Duggan, A. Hammond, G. Fletcher**
Cygnet Ward: **G. Wallace, B. Griffiths, F. Caswell**
Council Clerk: V. Reynolds
Meetings: Second Tuesday in month.

PORTLAND: Population 2 390,
Area 1 580 km². Main town: St Helens
Warden: **J. Brown**, Deputy Warden: **J. Tucker**
Councillors:
North Ward: **J. Brown, J. Tucker, A. Smith**
Central Ward: **C. Mitchell, M. Thompson, S. Evans**
South Ward: **P. Chalk, C. Davis, J. Pyke**
Council Clerk: J. Bonney
Meetings: Third Monday in month.

QUEENSTOWN: Population 3 860,
Area 140 km².
Warden: **B. Dilger**, Deputy Warden: M. Waller
Councillors:
B. Dilger, M. Waller, C. Evans, P. Mather, P. Dilger, R. Shea, P. Schulze, B. Pitt, T. Gray
Council Clerk: D. D'Alton
Meetings: Third Monday in month.

RICHMOND: Population 1 940, Area 570 km²
Warden: **J. Dunbabin**,
Deputy Warden: **C. Howlett**
Councillors:
North Ward: **F. Laidlaw, C. Howlett, R. Giles**
Central Ward: **J. Tapp, M. Howlett, J. Dunbabin**
South Ward: **N. Grice, D. Eakins, J. Nicholls**
Council Clerk: J. Johnston
Meetings: Second Tuesday in month.

RINGAROOMA: Population 2 340,
Area 1 630 km². Main town: Derby
Warden: **C. Rattray**,
Deputy Warden: **P. Waldon**
Councillors:
North Ward: **P. Waldon, B. Mountney, C. Rattray**
Central Ward: **J. Smith, C. Clark, A. Edwards**
South Ward: **J. Dakin, R. Singline, B. Bennett**
Council Clerk: T. Butters
Meetings: Second Monday in month.

ROSS: Population 500, Area 1 240 km².
Warden: **R. Riggall**,
Deputy Warden: **E. Cameron**
Councillors:
East Ward: **K. Lewis, G. White, K. Von Bibra**
South Ward: **E. Cameron, J. McEwan, E. Keach**
West Ward: **R. Riggall, S. Dowling, R. Bennett**
Council Clerk: G. Redman
Meetings: Third Monday in month.

SCOTTSDALE: Population 4 540,
Area 1 290 km²
Warden: **H. Saliern**, Deputy Warden: **K. Beattie**
Councillors:
Stronach Ward: **H. Salier, K. Beattie, G. Nichols**
Town Ward: **P. Partridge, N. Goss, P. McGinity**
Seabrook Ward: **K. Rosier, S. Smythe, B. Williams**
Council Clerk: T. Ransom
Meetings: Second and fourth Monday in month.

SORELL: Population 5 870, Area 780 km²
Warden: **E. Iles**, Deputy Warden: **T. Dunbabin**
Councillors:
Midway Pt Ward: **A. Holness, L. Rhodes, B. Dean**
Dodges Ferry Ward: **M. Raszeja, T. Casimaty, K. Ford**
Sorell Ward: **C. Iles, C. Weeding, G. Gill**
Dunalley Ward: **T. Dunbabin, B. Downie, B. Rainbird**
Council Clerk: N. Stewart
Meetings: Third Thursday in month.

SPRING BAY: Population 1 950,
Area 1 120 km². Main town: Triabunna
Warden: **G. Vance**,
Deputy Warden: **D. Madson**
Councillors:
Central Ward: **G. Vance, D. Laird, I. McElwee**
North Ward: **D. Madson, K. Ferguson, T. Gillow**
South Ward: **E. Bennett, B. Roberts, A. Walker**
Council Clerk: I. Bannister
Meetings: Third Wednesday in month.

STRAHAN: Population 470, Area 3 730 km²
Warden: **E. Banfield**, Deputy Warden: **T. Stone**
Councillors:
E. Banfield, D. Crane, R. Crane, L. Hart, R. Morrison, T. Stone, R. Patten, G. Williscroft, E. Nightingale
Council Clerk: T. White
Meetings: Second Monday in month.

TASMAN: Population 1 150, Area 480 km²
Main town: Nubeena
Warden: **T. Kingston**,
Deputy Warden: **G. Jennings**
Councillors:
Nubeena Ward: **G. Jennings, N. Noye, K. Clark**
Premaydena Ward: **J. Hull, W. Hamilton, T. Kingston**
Carnarvon Ward: **B. Heyward, P. Wilson, R. Hamilton**
Council Clerk: C. Wells
Meetings: Second Tuesdays in month.

ULVERSTONE: Population 13 660, Area 510 km²
Warden: **T. Stuart**, Deputy Warden: **L. Thomas**
Councillors:
East Ward: **J. Breheny, T. Frampton, A. Weston**
West Ward: **L. Thomas, P. Dunstan, M. Smith**
Central Ward: **T. Stuart, J. Bloomfield, S. Smith**
South Ward: **R. Gardiner, G. Williamson, E. Smith**
Council Clerk: A. Mott
Meetings: Third Monday in month.

WARATAH: Population 2 170, Area 2 710 km²
Warden: **A. Kentesber**,
Deputy Warden: **H. Cook**
Councillors:
North Ward: **A. Kentesber, A. Whyman, R. Fagan**
South Ward: **H. Cook, D. Gillard, J. Darragh**
East Ward: **M. Brock, S. Walsh, L. Stokes**
Council Clerk: M. Griffiths
Meetings: Second Tuesday in month.

WESTBURY: Population 7 210, Area 900 km²
Warden: **H. McCulloch**,
Deputy Warden: **P. Hegarty**
Councillors:
Bracknell Ward: **H. McCullock, G. Spencer, J. Hillier**
Hagley Ward: **P. Beveridge, S. West, D. Archer**
Quamby Ward: **V. Plunkett, P. Bellinger, S. Clarke**
Carrick Ward: **R. Johnstone, J. Keeling, G. O'Keefe**
Exton Ward: **J. Lyne, P. Phelp, P. Hegarty**
Council Clerk: G. Fellows
Meetings: Second Monday in month.

WYNYARD: Population 12 520, Area 810 km²
Warden: **R. Chalk**, Deputy Warden: **R. Smith**
Councillors:
Cam Ward: **B. Green, D. Moore, R. Smith**
Wynyard Ward: **C. Dixon, K. Hamilton, R. Kalbfell**
Calder Ward: **W. French, J. Beamish, P. Jones**
Flowerdal Ward: **R. Chalk, M. Elphinstone, M. Hawley**
Council Clerk: J. Gibson
Meetings: Second and fourth Mondays in month.

ZEEHAN: Population 6 560, Area 3 000 km²
Commission: Chairman: **I. Wood**
Council Clerk: G. Williams
Meetings: Second Tuesday in month.

3.7 REFERENCES

ABS Publications:

Australian Municipal Information System (AMIS) Manual (1103.0), irregular, latest issue released in December 1980—this Manual describes the AMIS computer data base system which contains a range of data on a comparble basis for all Australian local government areas. Output from the system is available on request.

Other Publications:

Acts of the Parliament of Tasmania (annual, Tasmanian Government Printer, Hobart).

Tasmanian Statutes 1826–1959 (Consolidated reprint) (Tasmanian Government Printer, Hobart, 1960–1967).

Solomon, D., *Australia's Government and Parliament* 4th edition (Nelson 1978).

Townsley, W.A., *The Government of Tasmania* (University of Queensland Press, St Lucia, 1976).

Chapter 4

LAW AND ORDER

		Page No.
4.1	**Police**	82
4.1.1	Criminal Investigation	82
4.1.2	Traffic Control	83
4.1.3	Support Services	84
4.1.4	Crime Prevention	85
4.1.5	Recruitment and Training	85
4.1.6	Community Relations	86
4.2	**Courts**	87
4.2.1	Supreme Court	88
4.2.2	Lower Courts	88
4.2.3	Commonwealth Courts	90
4.3	**Sentences**	91
4.3.1	Fines	91
4.3.2	Prison	92
4.3.3	Probation and Parole	93
4.4	**References**	93

Chapter 4

LAW AND ORDER

Although law is not the only source of social cohesion, it is an indispensable regulator of human life and social activity. Rules of conduct however, irrespective of source are insufficient in isolation; they need the backing of legitimacy and authority and the support of institutions of enforcement; the police, courts and a system of penalties.

Tasmania's laws, its legal system and institutions are derived from Britain. Indeed, for a time, English law directly applied to the colony and, by Federation in 1901, all Australian States had a legal system firmly based on the Common Law of England. With federation, Tasmanians also became subject to Commonwealth laws enforced by administratively separate institutions.

The legal system is based on the political and philosophical ideal called *the rule of law*. This means a person's relations with other people and the State are governed by law, not by force or arbitrary power. The Parliament enacts the law and officers who administer the law are responsible, through parliament, to the people.

Another principle of the rule of law is that no person should be deprived of his life, liberty or property except by fair trial in open court presided over by impartial judges. In law, all people are equal.

Australia has two sources of law, case law and legislation or statute law. Case law, also called common law, consists of rules resulting from the decisions of the courts. When a case comes before the courts, the judges generally apply the law as laid down or interpreted by earlier courts that decided similar cases.

The Commonwealth and State parliaments make Australia's laws within powers set out in the Constitution. Often legislation gives power to the Governor-General, Governor or a Minister to make rules of law. Such laws, called subordinate, or delegated, legislation are an important part of the law.

State, and Commonwealth, police are charged with enforcing the law. The police have broad powers to investigate breaches of the law and to arrest people suspected of crimes. Usually, it is the police who institute criminal proceedings. Each State as well as the Commonwealth has its own police force.

When formal charges are laid, guilt or innocence is determined through trial in a court. In Tasmania, this is either the Supreme Court or, for less serious matters, a lower court, with each having jurisdiction in civil, as well as criminal, matters. In civil trials and in criminal matters in the lower courts the verdict is generally determined by a magistrate or a judge. In the Supreme Court criminal matters are decided by a jury.

Tasmanian legislation regulating juries seems to have been first passed in 1830 although the *Hobart Town Gazette* shows that juries had been employed in the colony for the trial of criminal cases from the establishment of the Supreme Court in 1824. Juries remain as the tribunal for trying indictable criminal cases and there is limited right to a jury in civil actions, although in 1935 they were abolished for the purpose of trying motor accident cases.

Although the Tasmanian jury system is based on the English system it has, since 1934, embodied the principle of allowing majority decisions in certain circumstances instead of requiring the unanimous decisions once characteristic of juries in England. In criminal cases, a 10–2 decision is accepted in lieu of 12–nil after stipulated periods of deliberation. In the case of murder, 12–nil is necessary to convict, but 10–2 can bring in a verdict of not guilty, or not guilty of murder but guilty of a lesser crime.

Civil cases have a seven-member jury and, if after three hours deliberation a seven–nil decision cannot be reached, a five–two decision is accepted. If the minimum five–two decision cannot be reached after four hours, the jury may be discharged.

At present, all people listed on the electoral roll below the age of 65 are liable for service as jurors. However, persons convicted of an offence, bound by a recognizance or subject to a work order or probation are disqualified from service.

Within limits prescribed in legislation, the presiding officer of the court imposes a sentence; a fine or imprisonment, each of which may be suspended on a condition of good behaviour, probation, or work order.

In 1984–85 88 000 offences were recorded by police. Five charges of murder and one of attempted murder were proven in the courts. Most offences involved motor vehicles, breaking and entering or theft.

4.1 POLICE

Directed by a Police Commissioner answerable to the Minister of Police, the Police Department is composed of a force of 1 017 officers (one per 438 persons) plus support personnel. It consists of four main branches; criminal investigation, traffic control, recruitment and training and support services.

The duty of a police officer is to serve the community by protecting life and property, preserving the peace and detecting and apprehending offenders. There are few limits however to the variety of tasks police officers are called on to perform; Tasmania Police provides a twenty-four hour a day, seven day a week public service.

Crime Frequency	
Property crimes	— One offence every 24.00 mins.
Theft (excluding motor vehicle theft)	— One offence every 44.4 mins.
Breaking and entering	— One offence every 84.9 mins.
Fraud, forgery, misappropriation	— One offence every 503.4 mins.
Motor vehicle theft	— One offence every 610.4 mins.

4.1.1 Criminal Investigation

Tasmania Police has Criminal Investigation Branches in their Divisional Headquarters at Hobart, Launceston and Burnie. The task of each branch is to detect and investigate crime and to offer the public advice on how to prevent crime.

Although it is Australia's smallest State force, Tasmania Police employs modern methods of criminal investigation and has a reputation for consistently producing a high rate of reported crime being 'cleared up'. In the period 1984–85, the clear-up rate of crime increased by 2.4 per cent.

Uniform officers from city, suburban and country police stations are often the first on the 'scene of a crime' and their reports are sent to the Divisional CIB for specialist attention. Each crime report is examined by senior officers and allocated to a detective. Then can follow hours of telephone calls, general enquiries, interviews, examination of statements and forensic reports in an effort to track down offenders.

Reported Serious Crime Per Head of Population	
1976–77	1 crime per 2.93 persons
1980–81	1 crime per 3.86 persons
1984–85	1 crime per 4.48 persons

4.1 Offences Recorded by Tasmania Police, 1984–85

Offences	*1984–85*
Assault and like offences	1 272
Homicide	14
Crimes of indecency and like offences	112
Other offences against the person	35
Offences against property	21 896
Fraud and similar offences	1 044
Miscellaneous police offences	3 319
Licensing Act offences	1 690
Racing and Gaming Act offences	192
Traffic and road safety offences	53 675
Miscellaneous Acts and offences	3 599

Several specialist squads have been formed within the Criminal Investigation Branch.

The Major Crime Unit

The Major Crime Unit was formed in August 1984 and it investigates serious crime such as murder and manslaughter. Each detective in the Unit has a particular task. When working on a case, the Unit is divided into two teams for investigative work; plus an Exhibits Officer who collects and records all exhibits connected with the crime and a Running Sheet Officer who records and collates information relating to the investigation.

The Drug Bureau

Drug Bureau members gather, receive, collate and act on information relating to illicit importation trafficking and usage of narcotics.

In recent times, drug trafficking has spread throughout the world. Since 1984, additional personnel have been seconded to the Drug Squad for assistance to deal with security of the poppy industry during the growing and harvesting season. The Tasmanian Government has national and international responsibilities under the 1961 Single Convention on Narcotic Drugs. In Tasmania this responsibility is exercised by close co-ordination of the work of the Poppy Advisory Control Board and the Police Department.

The Vice Squad

The detectives of the Vice Squad are responsible for the investigation of crimes against the person as well as the investigation of all matters that have sexual overtones. They are also responsible for policing the *Classification of Publications Act*, the *Child Protection Act* and certain aspects of the *Child Welfare Act*.

The Fraud Squad

This Squad was formed to combat white collar crime. These crimes can vary from a simple dishonoured cheque to a complicated company embezzlement. A thorough knowledge of banking systems and contract law is essential for detectives working in this Squad.

The State Arson Squad

The State Arson Squad investigates fires involving arson and fires for which a cause cannot be readily determined. Detectives liaise with the State Fire Services, Hydro-Electric Commission, Government Analyst and other authorities which may be able to help in the investigation.

During the summer months, the Squad is also charged with the responsibility for the investigation of unlawfully lit rural fires and offences against the provisions of the *Fire Services Act* 1979. They then liaise with the Forestry Commission, the National Parks and Wildlife Service, volunteer fire services and various councils and commissions.

The Breaking Squad

Detectives in this Squad investigate all burglaries and related crimes such as stealing, receiving and possession of stolen property. The control of second-hand dealers and shop licences is also their responsibility. The investigation of theft which does not involve breaking into premises and the investigation of property damage is the work of the General Squad.

The Anti-Stock Stealing Squad

Detectives in this Squad investigate all stock thefts, check the transportation of stock, attend stock sales and assist RSPCA and National Parks and Wildlife personnel in their investigations.

Corporate Affairs

The officers of this Squad are on permanent secondment to the Corporate Affairs Office in Hobart and work statewide in liaison with the Corporate Affairs Commission. They investigate corporate and related fraud and offences relating to the *Companies Act*.

The Gaming Branches

Officers in these Branches are responsible for the surveillance and investigation of persons associated with unlawful gaming.

4.1.2 Traffic Control

Tasmania Police is a highly mobile force. The patrol officer in a car or on a motorbike is possibly the best known police figure today. Traffic police enforce traffic laws, facilitate traffic flow, investigate accidents and attempt to minimize their number and severity.

Traffic Patrol

The aim of Tasmania Police Traffic Patrol is to keep traffic moving safely on our Tasmanian roads. They detect traffic offenders, illegal parking, control the streets during parades, provide escorts for VIP visitors and overwidth vehicles and assist at accident scenes.

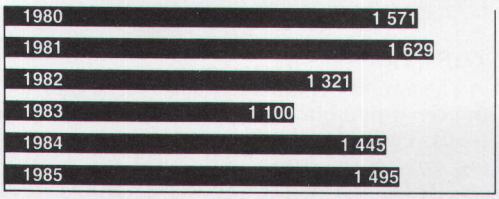


The BMW K100s used by the Force are specially modified for police work. They have a top speed of 215 kmph and their low mass and centre of gravity give them safe handling, even at these high speeds.

Radar Speed Gun and Amphometer: The radar speed gun and the amphometer are used by mobile patrol officers to detect speeding motorists. The speed gun is hand-held by the officer. The amphometer usually is used in areas of heavy traffic flow; it is a static device which measures the speed of a vehicle as it travels between two tapes attached to the road surface.

Accident Risk and Speed Reduction Program: This Program was introduced in December 1984 with the aim of preventing serious and fatal accidents on highways and roads which have a high accident rate. Transport Tasmania provided accident data such as position on the road, days of the week, time of the day and direction of travel, which enabled police to concentrate their traffic control measures on the high risk areas.

Accident Investigation Squad: The Accident Investigation Squad attends all fatal and serious accidents where serious charges are likely to arise. It is the duty of the first police officer on the scene of an accident to ensure it remains undisturbed until the arrival of the Squad. It is also his duty to ensure all the drivers of the vehicles involved are given a breath analysis, even if they have been taken to hospital. The officer also has the sad task of ensuring next of kin are notified and of completing the initial Coroners Form.



Road Traffic Accidents Involving Casualties

The Road Toll

This has stabilized over the last few years, but unfortunately has not been significantly reduced. Major factors contributing to fatal road accidents are alcohol, speed, pedestrian fault, failure to keep to the left and failure to give right of way.

4.2 The Road Toll, Tasmania (Number)

Period	Persons killed	Persons injured	Total
1980	100	2 133	2 233
1981	111	2 273	2 384
1982	96	1 871	1 967
1983	70	1 473	1 543
1984	84	2 015	2 099
1985	78	2 070	2 148

Random Breath Testing

Random Breath Testing (RBT) began in Tasmania in February 1983, following the lowering of the legal blood alcohol limit from .08 to .05. In September 1984, three 'Mobile Breath Analysis Units' were introduced; one each was stationed at Hobart, Launceston and Burnie. The Units were specially designed and built for Tasmania Police and are equipped with shower, toilet and kitchen facilities for the RBT Squad members who work late into the night. The public testing area is also well equipped, comfortable and practical.

Motorists are selected at random and requested to undergo a breath test by blowing into the Drager portable digital readout screening device; new mouthpieces are used each time. If the result of the test is negative, the motorist can drive on. If positive or borderline, a full breath analysis on a Breathalyser machine may be required and will be conducted in the Unit or at a city police station.



A familiar sight on Tasmanian roads, the Mobile Breath Analysis Unit conducting random breath tests.

4.1.3 Support Services

In fulfilling their role as crime fighters and protectors of the community, Tasmania Police is assisted by various support services which are administered and developed by the Management Services District.

The District has six specific areas of operation: Planning and Research Section; Search and Rescue Section; Transport Section; Communications (Technical) Section; Information Bureau; and Scientific Bureau. Of special assistance to Criminal Investigation and Traffic Branches is the Scientific Bureau.

The Scientific Bureau

The Scientific Bureau is divided into four main areas; Photographic, Fingerprints, Ballistics and Questioned Documents. Members of the Bureau are highly qualified in their respective fields, and work closely together in their efforts to prove the guilt or innocence of persons suspected of having committed crime. Their forensic duties are performed in co-operation with the Government Pathologist and Analyst.

Photographic Section: Police photographers produce high quality, evidentiary photographs of motor vehicle accidents, murders, animal cruelty, vandalism, burglaries and stealings. Should an offender be charged, these photos are then used as official court *exhibits*.

Amongst the sophisticated equipment used by officers of the Section, is the 'Wild' stereometric camera which produces a three dimensional photograph. These photographs are then transferred by a qualified photogrammetrist to a

detailed scale plan. The camera, and ultimately the plans, are used mainly to gather evidence in such events as murders and serious or fatal motor vehicle accidents.

Fingerprint Section: Fingerprinting is a precise science in criminal detection. No two fingerprints are the same; therefore each individual can be identified by their fingerprint. Officers study for five years to qualify as an acknowledged 'fingerprint expert'. Over 50 000 sets of prints are held in the records system and the Fingerprint Section has close links with Sections in other States and also with Interpol and the Central Fingerprint Bureau in Sydney.

Questioned Documents Section: The Questioned Documents Section is responsible for the examination and comparison of handwriting and typewriting to identify alterations, obliterations and erasures from documents. Section members are usually called in to examine documents relating to fraud, false pretences, corporate crime, threatening letters or documents where the author is unknown or suspect.

Staff also compile photofits from descriptions given by witnesses and victims of crime. The photofit kit contains hundreds of different facial features: eyes, noses, mouths, beards, eyebrows, hairstyles, chins and ears.

Ballistics Section: Tasmania Police ballistics experts handle, test and assess weapons and types of ammunition. It is not a job for the nervous or careless. Fortunately in Tasmania, violent crime involving firearms is rare. However, it is essential for every police force to have ballistics experts, because no firearm leaves marks on bullets identical to those fired by another gun.

The Ballistics Section is responsible for the maintenance of departmental firearms. They also inspect new and existing pistol ranges, checking for acceptable safety standards, and provide expert tuition for recruit and in-service courses at the Police Academy. The Section maintains a ballistics reference library and museum of antique, modern and 'home-made' firearms.

Search and Rescue

The life in this Section is always varied and officers are always ready to respond to a call for a land, inland water or sea search.

The Rescue Squads throughout the State hold regular training days to keep themselves and their equipment fully prepared. Bushcraft, cliff rescue and diving are skills demanded of police rescue in Tasmania's varied and often dangerous terrain.

A feature of many rescues from inaccessible spots or when medical reasons demand the swiftest response possible is the Search and Rescue helicopter. The Westpac Banking Corporation helps to contract a helicopter, which is on a thirty minute call for use by Tasmania Police.

Over the 1984–85 summer season, 17 stranded canoeists and rafters were winched from the dangerous gorges of the Franklin River.



Search and Rescue Squad members prepare for take-off on 4 January 1985 for the snows of Cradle Mountain to rescue a bushwalker who had broken his ankle.

4.1.4 Crime Prevention

A vigilant, well informed public can take an active role in crime prevention. Making people responsible for their own safety and the security of their property is the aim of officers who work in the Crime Prevention Bureaux of Tasmania Police.

Their advice is readily available to householders, businesses, government and other police officers. Many lectures and workshops are given every year to schools, service clubs and businesses. They also test the many anti-crime devices offered by commercial firms, such as locks and payroll protection.

The media is used by the Police to get their message across and brochures with such titles as '*Protect Your Car*' and '*Safety for Senior Citizens*' are widely distributed. Promotional material, stickers and films are always popular. The National Mutual Insurance Company has long been the sponsor of the famous 'Stranger Danger' campaign for young children.

4.1.5 Recruitment and Training

Standing on a 29 hectare site at Rokeby, 17 kilometres from Hobart the Tasmania Police Academy was opened by the then Premier, the Honourable Bill Neilson, on March 6, 1976.

Over the years, the recruitment practices and the curriculum have changed to meet the manpower requirements of the Force. The Police

Cadet system ended in 1983. The Academy has also been the venue for police in-service and staff development courses. Today, adult (age 18–33) recruit courses, police in-service courses and courses for officials of other agencies who have a law enforcement role, are conducted at the Academy. The fine facilities are also used by many groups as a conference, seminar and concert venue.

Basic requirements for entry to the force are Australian or British citizenship, age, education, health and physique. Entrants must pass an exam and physical fitness test. The candidates are interviewed by a selection board and medically examined before a final selection of recruits is made.

The 44 week, fully residential training course for recruits is a hectic one. There is a full study schedule of academic and practical subjects, and physical training and sport. Recruits get a chance to work in police stations, with community groups and to develop survival skills in the bush.

The curriculum is based on the modern thematic modular approach to specific problem areas which face police officers. Legal procedures, social and practical policing techniques of each area are taught at the same time.

Nearly 2 000 police officers and members of other agencies attend over 70 in-service courses a year at the Academy. Topics range from police subjects such as criminal investigation, bomb squad and legal procedures to domestic crises intervention and small boat handling.

4.1.6 Community Relations

Tasmania Police is very aware of the importance of effectively and accurately telling the public about its activities. There are sections of the Force, however, who are specialists in aspects of community involvement. The Public Relations Bureau, the School Lecture Squad, the Police Pipe Band, Police & Citizens Youth Clubs and the Blue Light Disco all play a role beyond the policing of society.

Media liaison is the major task of the Public Relations Officer. Reporters call in daily for details of police operations and opinions which make news. School lectures and tours of the Police Academy are provided by Public Relations Officers at the Police Academy. Officers from the Academy also regularly travel the State visiting schools and attending Career Evenings.

Promotions such as displays at agricultural shows and 'Police Week' are always popular and give people a chance to see police equipment and speak to officers in friendly surroundings.

'Police 5', the weekly statewide round-up of unsolved crime is seen on Tas-TV. The public are invited to call a special police number with information about the cases and their information has provided many valuable leads for detectives.

Each year films are made for the Police Department by the Tasmanian Film Corporation. Recent films have been 'Walkaway Prices' about juvenile shop stealing, 'Bomb Threat', and 'Your Turn Next ...?' about the dangers of drink driving.

There are 16 Police & Citizens Youth Clubs around the State, with a total combined membership of over 5 000 children. Membership is open to all young people over the age of seven and the Clubs provide a wide range of physical, cultural and recreational activities. As well police officers and their local communities voluntarily organise Blue Light Discos, which provide fun for teenagers and benefit local charities.

The Tasmania Police Pipe Band

The Pipe Band is justly famous around the State and overseas for its fine performances. The Tasmania Police Pipe Band wears the tartan of Fletcher Dunans. It was chosen in honour of the Commissioner of Police who was in office when the Band was formed in 1969. The driving force for the establishment of the Band came from Inspector Frank Fletcher, brother of the Commissioner. Through his persistence, a group of police officers came together and formed the nucleus of what was to become a fine pipe band.

The Police Pipe Band was the only Australian Band to attend the Edinburgh Military Tattoo in August/September 1984. The Band and their supporters raised over $70 000 for the trip, including generous support from the State Government, TAA and Qantas.

In addition to their Tattoo performances, the band made history when they were the only band ever to be invited to take part in a Festival street parade with the Edinburgh Pipe Band. They also participated in a parade in Glasgow and a charity performance at a hospital.



The Tasmania Police Pipe Band on parade.

4.2 COURTS

Courts are tribunals set up to hear arguments to resolve allegations that offences have been committed and to resolve disputes. Where matters are proven the courts impose a penalty or penalties; where matters in dispute are decided the court can impose appropriate conditions of settlement.

As in the other Australian States, Tasmanian courts derive from British traditions. Thus the basic hierarchy of courts is similar between States, except that in Tasmania there are no intermediate courts. The Higher courts are titled Supreme Courts and deal with matters of a major nature. Cases brought before the Supreme Court will usually be heard by a judge and jury. It also hears appeals from lower courts at which the case will be heard by several judges and be referred to as the Full Court of the Supreme Court or the Court of Criminal Appeal.

Lower courts in Tasmania are known as Courts of Petty Sessions or Magistrates Courts which deal with minor civil or criminal matters. Civil matters involving amounts of less than $5 000 are heard in Courts of Requests.

Cases involving children are heard by the Children's Courts and may involve either a criminal matter or an allegation under child or community welfare legislation relating to a child being in need of care, control or protection.

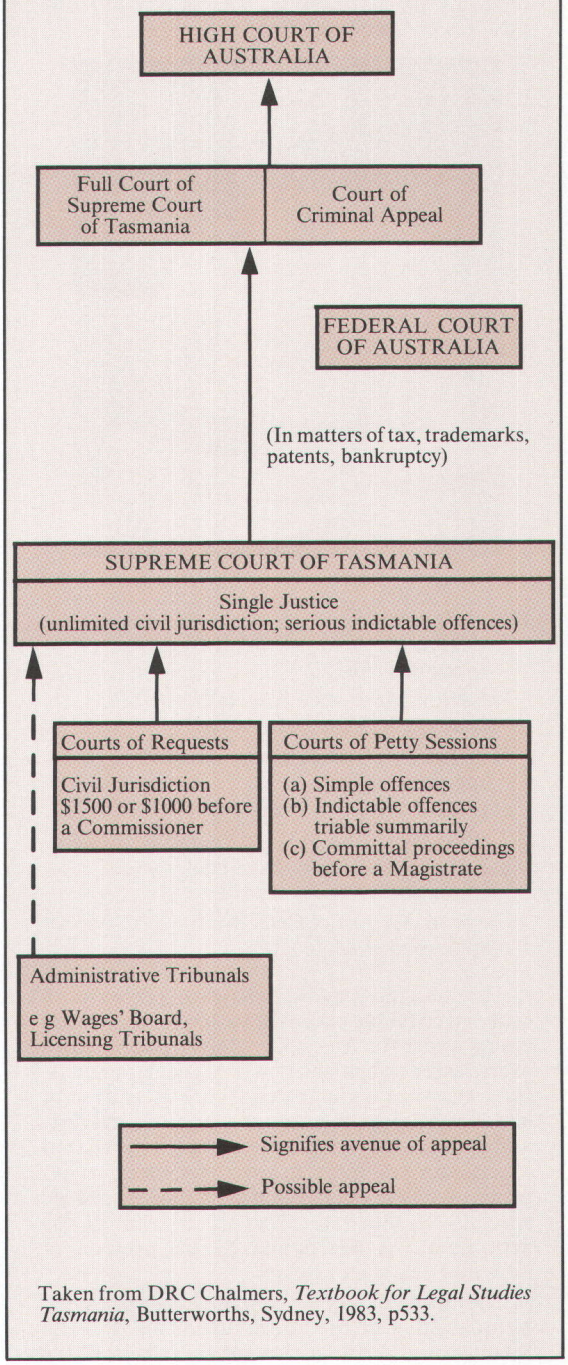
In addition, inquests concerning certain deaths or the cause of fires are held as required in Coroners Courts.

Although not strictly courts, there are also a number of tribunals set up under particular statutes to act as specialised courts. An example is the Wardens' Court constituted under the *Mining Act* 1929 to hear matters involving mining licences.

Alongside the State courts, Tasmanians, like the residents of the other States, are subject to Commonwealth laws, for which there is a system of Commonwealth Courts. The most prestigious is the High Court of Australia constituted by the Chief Justice and six other Justices to resolve inter-state disputes and disputes between the Commonwealth and the States. If there is sufficient business, the High Court may sit in Hobart.

With the passing of the *Family Law Act*, in 1975, the Family Court of Australia was established to deal with divorce and the custody of children. The sole ground for divorce became irretrievable breakdown of marriage.

The Tasmanian State Court System



Taken from DRC Chalmers, *Textbook for Legal Studies Tasmania*, Butterworths, Sydney, 1983, p533.

4.2.1 Supreme Court

The Supreme Court of Tasmania is constituted by the Chief Justice and six puisne judges. Regular sittings of the court are held at Hobart, Launceston and Burnie, although the court is authorised to sit and act at any time and at any place in the exercise of the jurisdiction and business of the court.



Chief Justice — The Hon. Sir Guy Green appointed 1973

Puisne Judges —

The Hon. Mr Justice Francis Neasey, appointed 1963.

The Hon. Mr Justice Robert Nettlefold, appointed 1971.

The Hon. Mr Justice Henry Cosgrove, appointed 1977.

The Hon. Mr Justice William Cox, appointed 1982.

The Hon. Mr Justice Peter Underwood, appointed 1984.

The Hon. Mr Justice Cecil Brettingham-Moore appointed 1984.

The court has jurisdiction over all causes, both civil and criminal, except those reserved for other courts under the Australian Constitution. It also exercises federal jurisdiction in particular matters. Its civil jurisdiction extends to all causes of action, whatever the amount involved may be, and its criminal jurisdiction includes the trial of all indictable offences. In civil cases, the court has power to call in the aid of one or more assessors specially qualified to assist in the trial of the actions, but is not bound by the opinion or advice of any such assessor.

The jurisdiction of the court is usually exercised by one judge of the court. From his decision there is a right of appeal to the Full Court of the Supreme Court of Tasmania. A Full Court usually consists of three or more judges of the court. The Full Court is also a Court of Criminal Appeal under the Criminal Code. Appeals may be brought by the Crown or by an accused person from all inferior courts where an indictable offence is involved as well as from many statutory tribunals. In some cases, there is an appeal as of right, in other cases, leave is required.

Unlike a Children's Court the Supreme Court is in no way inhibited in imposing a penalty on a child. In addition to its ordinary sentencing powers, it may make supervision or wardship orders, and commit a child to an institution. If a child is sentenced to imprisonment, the responsible Minister may direct that the sentence be served in a place other than a gaol.

4.3 Offences Finalised and Proven in the Tasmanian Supreme Court, 1985

Offence	*Finalised*	*Proven*
Offences against the person	245	201
Robbery and extortion	23	23
Breaking and entering, fraud and other offences involving theft	639	545
Property damage and environmental offences	34	25
Offences against good order	56	36
Drug offences	43	37
Motor vehicle, traffic and related offences	13	12
Total	1053	879

In 1985, 83 per cent of matters finalised in the Supreme court were proven. Most of the matters finalised, 85 per cent, involved males.

4.2.2 Lower Courts

The lower courts are presided over by magistrates or justices of the peace and exercise both criminal and civil jurisdiction in minor matters. Both jurisdictions are kept separate although the same magistrate or Justice may preside over both types of case.

Civil cases include minor disputes in the 'common law' area such as landlord and tenant disputes and hire purchase; magistrates generally try cases alone, without a jury. In their criminal jurisdiction the courts have power to try and impose sentence in summary offences. Some magistrates preside over Children's Courts.

Courts of Petty Sessions

There is a Court of Petty Sessions sitting in Hobart, Launceston, Devonport, Burnie and elsewhere. The court is constituted by a magistrate (who must have been a legal practitioner or barrister for not less than five years) or by two or more lay justices. In major centres of population,

a court sits regularly; in smaller centres a court sits less frequently or is convened as occasion requires.

A Court of Petty Sessions has jurisdiction over all summary offences and also over certain indictable offences at the option of the defendant including:

- escape or rescue, facilitating escape of a prisoner or harbouring an offender; assisting escape of a criminal lunatic; rescuing goods legally seized; making a false declaration (or statement);
- stealing; killing an animal with intent to steal; unlawfully branding an animal; obtaining goods by false pretence; cheating; fraud in respect of payment of work; receiving stolen property, (in all cases the value of the property concerned must exceed $500 but not $5 000. If the value does not exceed $500 the defendant will be tried summarily. If it exceeds $5 000 he will be committed for trial in the Supreme Court);
- breaking into a building other than a dwelling-house, (it is necessary for the defendant to be committed to the Supreme Court for trial where it is alleged that in the commission of the offence: property to the value of more than $5 000 has been stolen; violence has been used or offered to any person in or about the building; the person had in his possession a gun, pistol, dagger, cosh, or other offensive weapon; explosives were used; or the defendant intended to commit a crime other than stealing);
- forgery and uttering where the complaint must be for an offence in respect of a cheque for not more than $5 000.

Courts of Request

These are constituted as courts with civil jurisdiction for particular municipalities in accordance with the authority given by the *Local Courts Act* 1896. Courts are held before a commissioner who is usually a magistrate. Every court has jurisdiction throughout the State but a plaintiff may have his action struck out if he brings it in a court other than the court nearest to which the cause of action arose. In such circumstances the plaintiff may lose costs.

The current jurisdiction of a Court of Requests covers all personal actions where the debt or damage claimed does not exceed the maximum amount fixed under the Act. Legislation which took effect on 15 September 1985 has increased the jurisdiction of the Court of Requests to $5 000, and abolished the distinction between liquidated and unliquidated claims in so far as that distinction affected the institution of actions.

The commissioner alone determines all questions of fact as well as of law and his decision is the judgement of the court, unless a jury is required. The general practices of the Supreme Court are adopted and applied in cases not expressly provided for in the Act or Rules.

In September 1985, there was a Small Claims Division formed within the Court of Requests structure to handle, generally speaking, claims up to $2 000. A Special Commissioner was appointed to handle such matters. His primary function is to attempt to bring the parties to a dispute to an acceptable settlement but, if he cannot do so, he may determine the matter in dispute. Proceedings in this jurisdiction are private, straightforward and informal. Legal practitioners are excluded as a general rule, and the Special Commissioner may proceed as he sees fit.

4.4 Offences Finalised and Proven in Tasmanian Lower Courts, 1985

Offence	*Finalised*	*Proven*
Offences against the person	645	522
Robbery and extortion	2	1
Breaking and entering, fraud and other offences involving theft	5 275	4 956
Property damage and environmental offences	1 307	1 239
Offences against good order	5 590	5 094
Drug offences	1 777	1 660
Motor vehicle, traffic and related offences	6 393	6 299
Other offences	35	33
Total	21 024	19 804

Matters finalised in the lower court may be finalised by referral to the Supreme Court. In 1985, 78 matters were finalised by this method. Most were in relation to the more serious crimes of offences against the person and breaking, entering, fraud and other theft. About 87 per cent of matters finalised involved males, a slightly higher percentage than for higher courts. In terms of age the majority of matters coming before the courts relate to young offenders; males in the age bracket 15–24 account for about 55–60 per cent of male matters finalised. (Males in this age group comprise only 24 per cent of the male population aged 15 years and over.) A similar high proportion of female matters finalised relate to women in this same age bracket.

Children's Courts

A 'child' in this jurisdiction is one under the age of 17 years. The court before finally disposing of the case, must receive a report from a child welfare officer, (the representative of the Director of Community Welfare), unless the court considers the offence trivial or the Director decides not to provide one. A child's parent has the right to be heard and to examine and cross-examine

witnesses, or to be represented by counsel; also a parent can be compelled to attend the hearing if this imposes no unreasonable inconvenience.

In summary proceedings, the court is compelled not to enter a conviction against a child unless it imposes a sentence of imprisonment or there are special circumstances which indicate that a conviction should be recorded.

Children under 16 years cannot be sentenced to imprisonment and children of 16 years cannot be sentenced for more than two years, in aggregate. Minimum penalties imposed by statute do not apply to children; for those under 14 years the maximum fine is $20, and for those over 14 years, $100. The court may impose a supervision order to bring the child under the guidance of a child welfare officer or, if over 15 years, of a probation officer. Alternatively, the court may declare the child a ward of the State, placing him or her under the control of the Director for Community Welfare until his or her eighteenth birthday, unless released sooner; it may also direct that a ward be committed to an institution. In cases where further investigation appears necessary the Court may issue a remand for an observation order before it makes a final decision. Remands for observation orders are for short periods and usually provide for intensive supervision. (In the case of delinquency the maximum period for such an order is three months.)

Neglected or uncontrolled children are in the Court's jurisdiction. It may make a supervision order, an interim order (similar to a remand for observation order, the effect being to defer the transfer of guardianship until it is apparent that there is no suitable alternative), or impose wardship or bind the parents over to provide proper care and control, and comply with other directions. If parents have contributed to a child's offence by failing to control the child they may also be charged, convicted, fined, ordered to pay for damage and obliged to enter into a recognisance for the good behaviour of the child for up to 12 months.

4.5 Offences Finalised and Proven in Tasmanian Children's Courts, 1985

Offence	*Finalised*	*Proven*
Offences against the person	107	100
Robbery and extortion	3	3
Breaking and entering, fraud and other offences involving theft	1 729	1 697
Property damage and environmental offences	188	183
Offences against good order	1 198	1 125
Drug offences	25	25
Motor vehicle, traffic and related offences	73	72
Total	3 323	3 205

Coroner's Court

Coroners are appointed by the Governor and have jurisdiction throughout the State. Under the *Coroners Act* 1957, a coroner may hold an inquest:

- concerning the manner of death of any person who has died a violent or unnatural death, who died suddenly without cause being known, or from 'sudden infant death syndrome' or 'cot death', or who died in a prison, or mental institution. At the direction of the Attorney-General, he may also be required to hold an inquest concerning any death;
- concerning the cause of any fire if the Attorney-General has directed, or has approved a request by the owner or insurer of the property; or at the request of the State Fire Authority or the Rural Fires Board.

The duty of the court is to determine who the deceased was, and the circumstances by which death occurred. Medical practitioners and other persons may be summoned to give evidence. In the case of the death of an infant in a nursing home, the coroner may also inquire generally into the conditions and running of the institution. On the evidence submitted at the inquest, the coroner can order a person to be committed to the Supreme Court and can grant bail. In the case of murder, a coroner can issue a warrant for apprehension.

The coroner, in holding an inquest, usually acts alone, but either the Attorney-General or the relatives of the deceased may request that a four or six-person jury be empanelled. After considering a post-mortem report the coroner may dispense with an inquest, unless the circumstances of death make an inquest mandatory under the Act.

The *Coroners Amendment Act* 1985, which took effect on 21 August 1985, brought forward two significant innovations; the tape recording of depositions to speed up the hearing of inquests, and new provisions dealing with the care, custody and control of exhibits which may prove useful to those persons who need the use of exhibits pending the hearing of inquests or who seek possession of exhibits when the inquest is over.

4.2.3 Commonwealth Courts

The High Court of Australia

The High Court has original jurisdiction under the *Commonwealth of Australia Constitution Act* 1901 in cases concerning treaties, consuls, the Commonwealth of Australia as a party, residents in different States and matters arising under the Constitution. The most recent case involving Tasmania arose when Premier Robin Gray, on behalf of Tasmania, filed a writ seeking a declaration from the Court that regulations

gazetted by the Commonwealth Government to stop work on the Gordon-below-Franklin dam were invalid. The Court upheld the Commonwealth's regulations.

The High Court is the final court of appeal for Commonwealth and State Courts; it hears appeals from State Supreme Courts and the Federal Court of Australia, and in some circumstances, from the Family Court of Australia. It is also an arbiter on disputes concerning the Australian Constitution.

The Federal Court of Australia

Established in 1976 to replace the former Australian Industrial Court and the Federal Court of Bankruptcy, it sits in two divisions, Industrial and General.

The Family Court

The Family Court of Australia was set up by the *Family Law Act* 1975. It hears petitions for divorce and has jurisdiction in the welfare and custody of children and in disputes as to maintenance and property of marriage. In Tasmania, the Court has two judges, Mr Justice Wood based in Hobart, and Mr Justice Butler located in Launceston.

In 1985, 1 169 divorces were granted, a decrease of 16 on the number granted in the previous year. Consistently, about 60 per cent of the petitioners are females.

4.6 Divorces Granted by Sex of Petitioner

Year	*Males*	*Females*	*Total*
1980	512	773	1 285
1981	423	716	1 139
1982	542	849	1 391
1983	497	862	1 359
1984	431	754	1 185
1985	450	695	1 169 (*a*)

(*a*) Includes 24 joint applications.

4.3 SENTENCES

Statutes creating offences in criminal law often prescribe a penalty for the crime. It is, however, a maximum penalty. The magistrate or judge may exercise discretion in deciding what is appropriate taking into consideration the particular offender, and the circumstances of the offence.

An early theory of punishment was a concept of retribution, an eye for an eye. Its most severe form is in capital punishment. The death sentence was abolished in Tasmania in December 1968 having last been imposed in 1946.

Punishment has also been regarded as preventive, exercised to avoid further trouble from the offender. Capital punishment was at least effective, if perhaps at times extreme and transportation exported the offender and the trouble. Prevention is also effected by imprisonment, at least for the time of incarceration. In all these forms of punishment, deterrence, by imposing severe sentences on the offender as an example to the community, is a strong element.

Although fines and terms of imprisonment remain frequently imposed penalties, the modern trend has been toward reforming the offender. This is the basis for such sentences as community service orders, probation, and work orders.

4.7 Frequency of Sentences Imposed by Tasmanian Courts, 1985
(%)

Penalty	*Children's courts*	*Lower courts*	*Supreme Court*
Detention/ care of Welfare Dept.	17.7	6.5	68.3
Community service order	2.8	5.2	3.1
Recognisance/ bond/probation	17.2	13.4	24.8
Loss/suspension of driver's licence	2.1	18.2	1.5
Fines/compensation	15.4	44.5	2.1
Nominal penalty	44.8	12.2	0.3
Total (no.)	3 590	26 886	1 021

4.3.1 Fines

A fine is the most frequently imposed penalty by the courts. In 1985 fines provided just on 37 per cent of all penalties imposed by all courts, with the majority being handed down by magistrates.

4.8 Number of Fines Imposed by Tasmanian Courts, 1985

Offence	*Children's courts*	*Lower courts*	*Supreme Court*
Offences against the person	8	184	4
Robbery and extortion	—	1	—
Breaking and entering, fraud and other offences involving theft	70	865	2
Property damage and environmental offences	15	829	—
Offences against good order	229	3 434	—
Drug offences	8	876	—
Motor vehicle and traffic related offences	28	5 104	—
Other offences	—	27	—
Total	358	11 320	6

More than three quarters of all fines imposed related to just two offence categories, motor vehicle offences and offences against good order.

Most fines imposed are for amounts of less than $100; almost 65 per cent of fines in 1984. Only five per cent of fines are for amounts in excess of $250.

Number of Fines Imposed for 'Most Serious Matters', Tasmania, 1985

Value of fines ($)	*Children's court*	*Lower courts*	*Supreme Courts*
≤ 100	239	6082	—
101–250	3	2646	—
251–500	3	278	2
501–1000	—	10	—
> 1000	—	13	—
Total (no.)	242	9029	2

4.3.2 Prisons

Tasmania's main prison is at Risdon, near Hobart, which has, as an outstation, a prison farm at Hayes in the Derwent Valley. A prison at the Police Headquarters building in Launceston is a temporary holding centre where prisoners are held prior to being transferred to Risdon.

Approximately 95 per cent of people sentenced to gaol are males. In 1984–85, 641 prisoners were received comprising 619 males and only 22 women. Of the male prisoners received around 25–30 per cent were aged 20 years or under. The age group 21–24 normally accounts for a further 25 per cent of male prisoners received while around 20 per cent are in the age range 25–29 years. For women, ages up to 24 years normally make up about half the females received into prison.

4.10 Number of Prisoners Received by Age, Tasmania, 1984–85

Age (years)	*Prisoners received*	
	Males	*Females*
Under 19	84	4
19, 20	79	3
21–24	146	3
24–29	110	5
30–34	74	2
35–39	46	2
40 and over	78	3
Not known	2	—
Total	619	22

However, there was a total of 697 imprisonments, the total number of admissions to prison, during the period. A number of prisoners, almost entirely males, therefore had more than one prison sentence during the year.

4.11 Number of Imprisonments by Age Tasmania, 1984–85

Age (years)	*Imprisonments*	
	Males	*Females*
Under 19	99	4
19, 20	90	3
21–24	157	4
24–29	115	5
30–34	79	2
35–39	48	2
40 and over	84	3
Not known	2	—
Total	674	23

More than half the people sentenced to gaol had been imprisoned in previous years. In fact, of the 363 people (57 per cent) with previous prison sentences, 53 per cent had been to prison at least three times before.

The biggest proportion of imprisonments were for breaking and entering, fraud and other offences involving theft. Offences relating to motor vehicles and traffic were also relatively high.

4.12 Imprisonments by Most Serious Offence Tasmania, 1984–85

Most serious offence (a)	*Imprisonments*	
	Number	*Per cent*
Offences against the person	71	10.2
Robbery and extortion	5	0.7
Breaking and entering, fraud and other offences involving theft	232	33.3
Property damage and environmental offences	25	3.6
Offences against good order	135	19.4
Drug offences	29	4.2
Motor vehicle, traffic and related offences	198	28.4
Other offences	1	0.1
Not known	1	0.1
Total	697	100.0

(*a*) Where a prisoner is sentenced for more than one offence, the most serious offence has been counted. This is the offence resulting in the longest sentence.

Only a small proportion (about 10 per cent) of gaol sentences are for periods of one year or more. In 1984–85 seven persons received life sentences, all for homicide offences. Most prison sentences were for a period of one to three months.

4.13 Length of Sentences, Tasmania, 1984–85

Length of sentence	*Percentage of imprisonments*
Life	1.0
10 years or more	0.1
2 to under 5 years	2.7
1 to under 2 years	8.0
6 months to under 1 year	19.5
3 months to under 6 months	21.2
1 month to under 3 months	22.0
8 days to under 1 month	18.2
7 days or less	7.2

4.3.3 Probation and Parole

Although fines and imprisonment are the most common sentences for offences, there has been a growing view that harsh punishments are not necessarily effective in reducing offences. The result is a growing move towards imposing custodial sentences that aim to reform the offender such as probation orders with supervision, and work orders. In Tasmania, the Probation and Parole Service is responsible for administering these sentences.

The service has a total complement of 60 permanent officers, 43 of whom are Probation and Parole Officers. The remainder are Work Order Co-ordinators, clerical and support staff. The Head office is at Hobart and District offices are located at Burnie and Launceston. Branch offices are to be found at Glenorchy, Rosny Park, Gagebrook, Georgetown, Devonport and Queenstown. Smaller offices, manned on a part-time basis have been established at New Norfolk, Huonville, Scottsdale, Ulverstone and Railton.

The Service works closely with officers of the Mental Health Services Commission, the Department of Community Welfare, the Prison Service and the Police. It is essentially a community-based operation involving close liaison with families, private relief agencies, public departments concerned with human problems and law enforcement. While there is a significant component of welfare work involved, the Service conducts over 200 prosecutions annually against persons failing to discharge satisfactorily, the conditions and obligations set down in their Supervision or Work Orders.

As at 30 June 1985, 1 600 persons were subject to supervision orders, and 278 persons were discharging their work orders. For the year 1984–85, the Service prepared 1 272 court reports and 80 pre-release reports for the Parole Board. Of the total supervision case-load, approximately 10 per cent (170) were females and 5 per cent (76) were parolees. Over recent years the total case load has been fairly stable.

4.14 Probation and Parole Supervised Cases and Work Orders, Tasmania

Year ended 31 December	*New cases*	*Completed*	*Under supervision 31 December*
	Probation and Parole		
1981	1 018	1 177	1 645
1982	1 076	1 223	1 480
1983	1 143	1 041	1 582
1984	1 111	1 071	1 616
1985	1 083	1 114	1 576
	Work Orders		
1981	433	366	(*a*) 347
1982	589	519	(*a*) 377
1983	672	636	(*a*) 366
1984	690	616	(*a*) 400
1985	688	610	(*a*) 433

(*a*) Includes absconders

4.4 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Divorces, Tasmania, (3302.6), annual.

Prison Statistics, Tasmania, (4503.6), annual.

Children's Court Statistics, Tasmania, (4505.6), annual.

Lower Court Statistics, Tasmania, (4506.6), annual.

Higher Court Statistics, Tasmania, (4507.6), annual.

Social Report, Tasmania, 1985.

Other Publications:

Chalmers, D.R.C., *Textbook for Legal Studies, Tasmania*, Butterworths, Sydney, 1983.

Commissioner of Police, *Annual Report*, Government Printer, Hobart.

Parole Board, *Annual Report*, Government Printer, Hobart.

Chapter 5

PUBLIC FINANCE

		Page No.
5.1	**Commonwealth–State Financial Relations**	95
5.1.1	Commonwealth–State Tax Sharing Arrangements	95
5.1.2	Identified Health Grants	99
5.2	**Commonwealth Payments to or for Tasmania**	99
5.2.1	Grants Related to Health	100
5.2.2	Compensation: South-West Tasmania	100
5.3	**State Financial Transactions**	100
5.3.1	The Public Account	100
5.3.2	Consolidated Revenue Fund	101
5.3.3	Loan Fund	101
5.3.4	Public Debt	102
5.3.5	Trust Fund	103
5.3.6	State Government Works Program	103
5.4	**State Government and State Authority Taxation**	104
5.5	**Local Government Finance**	104
5.5.1	Commonwealth General Purpose Grants to Local Government	104
5.5.2	Receipts and Outlays	105
5.6	**State and Local Government Finance**	106
5.7	**References**	107
	Appendix	107

Chapter 5

PUBLIC FINANCE

With Australia politically organised as a Federation, the collection of public revenue and the expenditure of public money are undertaken by three spheres of government; Commonwealth, State governments and instrumentalities and local government authorities. This chapter examines the financial relations between Commonwealth, Tasmanian and local government authorities and provides details of revenue and expenditure.

5.1 COMMONWEALTH-STATE FINANCIAL RELATIONS

The Commonwealth has made payments of various kinds to the States since Federation. Prior to W.W.2 the payments were mainly of a marginal nature and designed to assist the financially weaker States. W.W.2 saw a major change in this relationship. The Commonwealth became the sole Government levying income tax thus removing the States' principal tax revenue source. This led to a major increase in both general revenue and specific purpose payments made to the States. Increases also reflected added scope of assistance to States as the range of government activities expanded.

As part of States giving up their right to levy income taxes the Commonwealth passed the *States Grants (Income Tax Reimbursement) Act* 1942. This brought in what was known as 'tax reimbursement grants' to States. These continued until 1958–59 and were conditional upon the States not levying income tax. For 1959–60 the tax reimbursement grants were replaced by 'financial assistance grants'. The main change was that calculation of the grants included a 'betterment factor' as well as increases in average wages and State population. Financial assistance grants were paid over the period 1959–60 to 1975–76. The legislation authorising payment did not specifically preclude States from entering the field of income taxation. However, the Commonwealth made it clear that the grants were conditional upon this factor.

Since 1976–77 general revenue grants to the States have been based on shares of Commonwealth taxes. Initially the sharing was limited to a proportion of personal income taxes. Since 1981–82 the arrangements have been extended to encompass all Commonwealth tax collections.

5.1.1 Commonwealth-State Tax Sharing Arrangements

State governments, through the Premiers' Conferences had expressed dissatisfaction with the financial assistance grants. They felt that the grants did not adequately reflect growth in revenue available from major tax sources; nor did they keep pace with the growth in expenditure on government services. Premiers felt States should be given direct access to income tax. In 1975 the States proposed that the general revenue grants should be based on the broad principle of compensation for lack of access to income tax. This broadly fitted in with the Coalition Parties' 1975 election policy of entering tax-sharing arrangements with the States. It was seen as giving States greater autonomy in their financial arrangements. Broadly the policy involved: giving States a direct share in the personal income tax; the right to levy their own income tax; more collective use of specific purpose payments and where appropriate absorption, of these into general revenue funds; and sharing with local government personal income taxes raised.

The proposed new tax sharing arrangements were discussed at the 1976 Premiers' Conferences and agreed to. The new system was introduced in two stages. The first commenced in 1976–77 and gave the States a specific proportion of personal income tax collected by the Commonwealth. The second stage gave States the right to either impose a surcharge or grant a rebate on personal income tax to be collected or paid by the Commonwealth on behalf of the States. This stage came into effect in 1978 when the federal *Income Tax (Arrangements with the States Act)* 1978 received Royal Assent. To date no State has imposed a surcharge nor granted a rebate on personal income tax.

Key elements in the 1976–77 Commonwealth-State income tax sharing arrangements.

- the scheme related only to personal income tax;
- the base to which the percentage was applied was net personal income tax collected in the year;
- the proportion of personal income tax to be shared among the States was 33.6 per cent in 1976–77;
- the total amount for division to be first determined and then apportioned to the States;
- initial per capita (head of population) relativities were the 1975–76 financial assistance grant relativities;
- the four less populous States could continue to apply for Grants paid on recommendation of the Grants Commission;
- State relativities were to be reviewed periodically.

Review of State Relativities

At the 1977 Premiers' Conference review of State relativities was discussed and in 1978 the Commonwealth passed legislation to enable the Commonwealth Grants Commission to undertake the review. The Grants Commission worked from the underlying principle that all States should be able to provide services not appreciably different in quality at tax and charge levels similar in each State. In doing the review, the Commission had to take account of the differing revenue raising capacities and differing levels of costs in providing similar quality services between the States.

The Grants Commission presented its report, *State Tax Sharing Entitlements*, in 1981. It concluded that changes in the State per capita relativities were desirable and set out proposed new relativities. These meant a significant shift of funds away from Western Australia, South Australia and Tasmania. Implementation would have cost Tasmania $64 m in lost revenue from tax sharing grants in 1981–82. State premiers could not agree and the Commission was asked to prepare a further report for consideration in 1982. For 1981–82 the Commonwealth agreed not to change the relativities used for distribution of the tax grants.

The second report was presented in May 1982. Some minor changes to relativities were made. These were largely a result of revisions to the States' estimated population. The Commission re-confirmed its views that changes in relativities were desirable if the principle of equality were to be achieved. The new relativities meant a marked shift in the distribution of tax sharing grants from the less populous States to New South Wales, Victoria and Queensland. Had the Commission's recommended relativities been applied in 1982–83 Tasmania would have received $69 m less than under relativities prescribed in the 1981 *States (Tax Sharing and Health Grants) Act*. Table 5.1 shows the alternative distributions of the estimated 1982–83 tax sharing grants based on: (i) relativities prescribed in the 1981 Act; and (ii) under the Commission's 1982 preferred relativities.

The 1982 Grants Commission recommendations were debated at the Premiers' Conference in June 1982. The States were unable to agree. The Commonwealth therefore proposed a distribution considered to be fair and equitable. In arriving at the distribution, the Commonwealth took account of the following points:

- the size of the change involved for some States if an immediate move to the new relativities occurred;
- with equal phasing in of new relativities over the three year period there would be some very low increases for some States. Therefore there should be a minimum increase guaranteed.
- the Commission had assessed that Tasmania and South Australia should have a lower share of tax sharing grants because of the above

5.1 Alternative Distributions of Estimates 1982–83 Tax Sharing Grants

State	*Per capita grants*			
	Relativities prescribed in States (Tax Sharing and Health Grants) Act 1981	*Relativities assessed in Grants Commission 1982 report*	*Percentage difference*	*Difference in total grants*
	($)	($)	(%)	($m)
New South Wales	443	450	+1.6	+38
Victoria	434	442	+1.8	+32
Queensland	601	676	+12.6	+185
South Australia	658	619	-5.9	-52
Western Australia	705	604	-14.2	-135
Tasmania	861	702	-18.5	-69

average amounts paid to them under hospital or cost sharing arrangements. However, both States were entitled to these amounts under previously negotiated agreements with the Commonwealth. The Commonwealth decided it would be appropriate to modify the Commission's assessments to reflect that both States were entitled to the above average payments.

The Commonwealth put the following to the Premiers:

- the Commission's assessed relativities for South Australia and Tasmania be modified so that hospital cost-sharing agreements had no adverse effects upon their part of the tax sharing grants;
- the modified relativities be phased in over three years ending 1984–85;
- a guaranteed minimum real increase in tax sharing grants for each State — two per cent in 1982–83 and 1984–85;
- a sum of approximately $149 m, representing escalated amounts made available in 1981–82 and in 1975–76 in consideration of transfer of South Australia's and Tasmania's railway systems, be set aside from the 1982–83 tax sharing pool and used firstly to fund the guarantee and any left-over amounts then be distributed between the States.

The Commonwealth also imposed the condition that no special grants would be paid in the period 1982–83 to 1984–85. The Premiers accepted the proposals.

1981–82 Changes

In 1981 the States put to the Commonwealth an agreed State position on general revenue assistance. Main points were:

- the starting point for 1981–82 determinations should be the aggregate level of actual grants paid in 1980–81, including the 1979–80 special grant to Queensland. This total should then be expressed as a percentage of the tax base chosen;
- the base should either be personal income tax or total Commonwealth taxation collections;
- new arrangements should include a guaranteed increase factor.

The Commonwealth stated it would not accept the guaranteed increase factor since it would lead to growth in general revenue grants inconsistent with the objective of containing public sector growth. The Commonwealth accepted the move to a total Commonwealth tax collection base. The taxes identified as part of the base included import duties, excise duty, income tax, sales tax, departure tax and estate and gift duties. A part of the proposal included replacement of hospital-cost sharing assistance with new identifiable general purpose health sharing grants. The guarantee that a State's grant would not be less, in absolute terms, than in the previous year was retained. Also retained was the right for States to levy a surcharge or grant a rebate on personal income tax.

The new tax sharing arrangements were enacted in the *States (Tax Sharing and Health Grants) Act* 1981. The total amount to be paid to the States and the Northern Territory for 1981–82 was calculated as $7 004 800.

5.2 Total Tax Sharing Grant, 1981–82

	($m)
Tax Sharing Grants to States and Northern Territory in 1980–81	6 285.5
Plus 9% increase over 1980–81 (less $27 million)	538.7
Plus allocations to States and Northern Territory as per Schedule 2 to *States (Tax Sharing and Health Grants) Act* 1981	105.1
Plus additional grants agreed at 20 June 1981 Premiers' Conference	60.0
Plus special additional grant to Queensland	9.0
Plus estimated additional grant to Northern Territory	6.5
Total General Revenue Payments	7 004.8

After minor adjustment, this was distributed between the States on the basis of per capita relativities, which derived from the relativities based on the 1975–76 financial assistance grants, and population distribution.

For 1982–83 to 1984–85 the Northern Territory was excluded from the calculation of total tax sharing grants. The total amount paid to the States in 1981–82 (including the additional $60 m grant agreed to at the 1981 Premiers' Conference but excluding the additional $9 m to Queensland) was expressed as a percentage of total Commonwealth tax collections made in 1980–81.

This percentage (20.72 per cent of total Commonwealth tax collections) was then to be applied in 1982–83, 1983–84 and 1984–85 to the previous year's total Commonwealth tax collections. This determined the total pool for distribution.

The total pool was split into two parts:

- the basic tax sharing pool — 20.3233 per cent of total Commonwealth tax collections;
- 'supplementary pool' — 0.397 per cent of total Commonwealth tax collections.

The basic pool is split up among the States according to State populations weighted by per capita relativities.

5.3 Per Capital Relativities for Distribution of Tax Sharing Grants 1982–83 to 1984–85

State	*1982–83*	*1983–84*	*1984–85*
NSW	1.01960	1.01880	1.018
Vic.	1.00000	1.00000	1.000
Qld	1.43516	1.48508	1.535
SA	1.49634	1.47567	1.455
WA	1.54072	1.45686	1.373
Tas.	1.87261	1.75931	1.646

The purpose of the supplementary pool was to ensure that each State's total tax share grant increased in real terms by two per cent over the year before. Any balances left over were distributed between the States in accordance with the per capita relativities effective for that year. The following illustrates the calculation of Tasmania's basic tax sharing grant for 1984–85:

(i) Estimated population 31 December 1984 ('000) (438.9) x per capita relativity (1.646) = 722.5

(ii) The figure 722.5 is expressed as a percentage of the sum of each State's population multiplied by its per capita relativity — in 1984–85 this process gave a figure of 18127.5. Tasmania's percentage, calculated by this method, was 3.98549 for 1984–85.

(iii) The total basic tax sharing pool in 1984–85 was $8815.5 m; applying Tasmania's percentage calculated in (ii) gave a basic tax sharing grant for Tasmania of $351.3 m.

Following application of guaranteed minimum increases and distribution of the supplementary tax sharing pool Tasmania's 1984–85 grant was $415.0 m.

1985 Review of State Relativities

The provisions of the *States (Tax Sharing and Health Grants) Act* 1981 expired at 30 June 1985. It was therefore necessary that State relativities, used to distribute tax-sharing grants, should be reviewed and agreed to for implementation from 1 July 1985. In February 1984 the Commonwealth Grants Commission was given the task of reviewing State relativities.

The 1985 review was the third comprehensive review undertaken by the Grants Commission of State relativities since passage of the *States (Personal Income Tax Sharing) Act* 1976. The Commission had to:

- report on the per capita relativities for distribution of tax-sharing grants between the States.
- adopt, as for the 1981 and 1982 reviews, fiscal equalisation as the underlying principle.
- present the relativities on two bases — relative health needs reflected in the distribution of tax sharing grants and not reflected.
- assess whether the Northern Territory should or should not be treated separately for distribution of tax sharing grants.
- assessment was to be based on the years 1981–82 to 1983–84 inclusive.

The Grants Commission presented its 1985 report on 1 April 1985. The Commission's principal findings were:

- the relativity factors used to distribute tax sharing grants should continue to reflect States' relative health needs;
- the Northern Territory should continue to be treated as a special case because Commonwealth–Northern Territory financial arrangements were quite dissimilar to those existing between the Commonwealth and States; and there was insufficient time for the Grants Commission to fully investigate the special factors affecting the Northern Territory.

The Commission, in recommending relativity factors which reflect relative health needs, stated this was the only option which gave full effect to the principle of fiscal equalisation between the States. Application of the principle of fiscal equalisation meant a substantial reduction in the relativity factor from that actually applied for Tasmania in 1984–85. (The actual 1984–85 relativity factor for Tasmania and other States included Guarantee payments in accordance with the 1982 Premiers' Conference.)

Changes in distribution of tax-sharing grants resulting from the Grants Commission review meant that New South Wales, Victoria and South Australia each gained in terms of the proportion of the grants allocated to them.

5.4 Shares of Tax Sharing Grants Based on 1985 Grants Commission Report and Actual 1984–85 Distribution

(Per Cent)

State	*Actual 1984–85 distribution of tax share grants*	*Based on 1985 Grants Commission report*
NSW	29.751	30.482
Vic.	22.240	22.813
Qld	20.875	20.019
SA	11.013	11.185
WA	11.537	11.358
Tas.	4.584	4.142
Total	100.000	100.000

Application of the 1985 Report factors to tax sharing grants actually paid (including guarantee payments) would have meant a substantial loss of revenue for Queensland, Western Australia and Tasmania. In absolute terms Queensland would have suffered the largest reduction ($77m). However, the $40m reduction for Tasmania

5.5 Distribution of Tax Sharing Grants ($m)

State	*Actual distribution of tax sharing grants 1984–85 (1)*	*Distribution of grants if Grants Commission Report factors applied (2)*	*Difference ((2) minus (1))*
New South Wales	2693.7	2759.8	+66.1
Victoria	2013.6	2065.5	+51.9
Queensland	1890.0	1812.6	-77.4
South Australia	997.1	1012.7	+15.6
Western Australia	1044.6	1028.3	-16.3
Tasmania	415.0	375.1	-39.9
Total	9054.0	9054.0	—

would have represented nearly a 10 per cent loss in tax sharing grant revenue and the largest proportional reduction for any state. Strong opposition to the Grants Commission proposals were voiced by the Tasmanian and Queensland Premiers.

5.1.2 Identified Health Grants

Based on findings of the Committee of Inquiry into the Efficiency and Administration of Hospitals (Jamison Committee) the Commonwealth changed health funding to the States. Hospital-cost sharing agreements with the States were not to be renewed after 30 June 1981. Tasmanian and South Australian agreements were not due to expire until 30 June 1985. However, they were terminated on 1 February 1984 and the specific purpose payments involved were absorbed into the identified health grants payable during the remainder of 1983–84.

The Commonwealth changed its assistance from assistance specifically related to health costs to payments for general purposes. These payments are identifiable as a Commonwealth contribution towards the cost of health programs. The intention was that health grants be ultimately fully absorbed into the general purpose tax sharing grant. The identified health grants do not reflect relative health needs. These are reflected in the distribution of the tax-sharing grants as agreed at the 1982 Premiers' Conference. This, in the Commonwealth's view, gave the States their full constitutional responsibility for the provision of health services. It also enables State Governments to decide on their own expenditure priorities. The move also included an objective that users, who were able to pay, should do so.

5.2 COMMONWEALTH PAYMENTS TO OR FOR TASMANIA

For 1983–84 the Commonwealth agreed to provide the States with special revenue assistance. This was in response to State claims that they faced severe budgetary problems for 1983–84. The total amount provided was $155.5 million of which Tasmania received $7.2m. This was a once-off payment and did not form part of the base for determining the 1983–84 tax sharing grants.

5.6 Commonwealth Payments to or for Tasmania, 1983–84 and 1984–85 ($'000)

Item	*1983–1984*	*1984–85*
GENERAL REVENUE FUNDS		
Tax sharing grants	397 042	417 147
Special revenue assistance	7 200	—
Health grants	27 236	58 970
Total	431 479	476 117
GENERAL PURPOSE CAPITAL		
Capital grants	34 318	36 549
SPECIFIC PURPOSE PAYMENTS — RECURRENT PURPOSES		
Universities	35 020	37 240
Colleges of advanced education	10 367	11 125
Schools	26 290	28 722
Public hospitals — running costs	26 997	—
Medicare	10 675	31 945
Local government tax-sharing	14 697	15 568
Other	25 988	51 601
Total	150 034	176 201
SPECIFIC PURPOSE PAYMENTS — CAPITAL PURPOSES		
Schools	5 993	6 024
Other housing assistance	22 449	24 913
Roads	34 349	36 424
Australian bicentennial road development	12 517	14 900
Assistance for South-West Tasmania	62 906	12 378
Other	19 660	36 388
Total	157 874	131 027
Total general and specific purpose payments	773 705	819 894

The main grant paid to Tasmania is the general revenue tax-sharing grant. The State has complete autonomy how this money is spent. In recent years the tax-sharing grant has represented around 45 to 50 per cent of total receipts into the State's consolidated revenue fund.

5.7 Tax Sharing Grants

Year	Amount ($'000)	Amount per head of mean population	Tax sharing grants as a proportion of total consolidated revenue fund receipts
1980–81	298 602	702	48.1
1981–82	322 031	752	47.1
1982–83	362 777	842	47.4
1983–84	397 042	913	46.5
1984–85	417 147	949	43.8

5.2.1 Grants Related to Health

Until 1981 the Commonwealth's grants to States in relation to health were specific purpose in nature — e.g. hospital costs, community health and school dental programs. From 1981–82 the Commonwealth moved away from provision of specific purpose health grants to provision of general nature identified health grants. States could then determine their own priorities in spending these grants. In the case of Tasmania its hospital-cost grants agreement with the Commonwealth did not expire until 30 June 1985 and the Commonwealth continued to pay hospital cost grants to Tasmania. Tasmania's initial health grants (first paid in 1981–82) thus related only to community health, school dental health and other identified health needs. However, in February 1984 the Commonwealth terminated the hospital cost agreement with Tasmania and put all States on the same footing for grants related to health. The other major development in relation to health type grants occurred in 1983–84 when the Commonwealth, as part of its *Medicare* program, introduced payments to the States. These payments were to ensure States were not financially disadvantaged by the introduction of Medicare into their public hospital systems.

5.2.2 Compensation: South-West Tasmania

In March 1983 the Commonwealth Government gazetted regulations under the federal *National Parks and Wildlife Act* 1975 making further work on the Gordon-below-Franklin power scheme illegal. The matter went to the High Court on 1 July; the decision was handed down in favour of the Commonwealth. The Commonwealth had offered financial assistance to offset employment, other costs and effects of termination of the work. Once the High Court decision was handed down, negotiations as to the level of assistance were entered into. Agreement was reached that the following assistance would be provided in full settlement of the undertakings:

- $45.3 m for employment creation projects ($16.9 m was paid in 1983–84) plus direct Commonwealth expenditure of $5.6 m on upgrading the Hobart Airport. ($2.6 m was spent in 1983–84.)
- $200 m in equal annual instalments over 10 years as subsidy to providing 112 MW of electricity which would have been the output of the Gordon River Power Development Stage 2.
- Ex-gratia payment of $25 m for expenditure incurred on the scheme.

The Commonwealth also entered discussions to decide on arrangements for the joint management of the South-West Heritage Area.

5.3 STATE FINANCIAL TRANSACTIONS

5.3.1 The Public Account

The overall result of the Government's financial transactions for a year are recorded in the Public Account. This records the accumulated fund balances and, in summary, form the transactions in the Consolidated Revenue Fund, Loan Fund and Trust Fund which determine the balances.

5.8 Public Account: Summary of Transactions, 1984–85

Particulars		$'000
Opening balance 1 July 1984	58 655	
Add —		
Funds receipts from —		
Consolidated Revenue Fund receipts —		
Commonwealth		549 847
Other		403 362
Total		953 209
Trust Fund receipts —		
Commonwealth		164 195
Other		664 751
Total		828 946
Loan Fund receipts —		
New loan raisings		54 849
Conversions and redemptions		149 554
Commonwealth capital works grants		36 549
Other		45 081
Total		286 033
Accumulated revenue account receipts — deficit funded in 1984–85		5 644
Total		2 073 832

5.8 Public Account: Summary of Transactions, 1984–85 *(cont)*

Particulars	*$'000*
Less —	
Funds expended from —	
Consolidated Revenue Fund expenditure	952 922
Trust Fund expenditure	833 396
Loan Fund —	
Expenditure (excluding deficit financing)	135 908
Loans refinanced or converted	149 554
Total	285 462
Total funds expended	2 071 780
Closing Balance at 30 June 1984	60 706

5.3.2 Consolidated Revenue Fund (CRF)

This fund records the annual recurrent transactions relating to government revenue and expenditure. CRF records receipts of Commonwealth grants made to the State, and taxation and departmental receipts from rents, charges and sales. The operational spending of government departments is recorded in CRF; for example wages and salaries, power and fuel charges, office supplies, maintenance expenses, etc. CRF does not record all receipts and expenditure of government bodies. For example, the receipts and payments of the Hydro-Electric Commission do not enter the CRF. Also some receipts and payments go to or are made from trust funds — for example Commonwealth payments for roads are credited to the State Highways Trust Fund and road payments are made out of it. Whether the Government has a surplus or deficit on its yearly operation is determined by the net result recorded in CRF, i.e. if receipts are greater than expenditure, then a surplus is recorded; if the reverse applies, then the government's operations have resulted in a deficit.

Two methods are used to fund deficits. If CRF records a surplus then this may be used to offset the deficit. Alternatively, the deficit is funded by charging it against Loan Fund, i.e. new loan borrowings are used to cover the excess CRF expenditure. Until funding of the deficit takes place the balances are carried in the Accumulated Revenue Account. At 30 June 1985 total deficits funded from Loan Fund were $100.4 m. The balance carried in the Accumulated Revenue Fund at 30 June 1985 was $286 358.

The dependence of the State Government on Commonwealth grant funds for financing its day-to-day operations is highlighted in Table 5.10 with almost 58 per cent of receipts in 1984–85 coming from this source. The largest single Commonwealth Grant item was the tax-sharing grant ($417.1 m) or 43.8 per cent of total CRF receipts. State taxation (as defined by State Treasury) accounted for just over 22 per cent of revenue. The next most important item was debt charge recoveries of $92 m or 9.6 per cent of CRF receipts.

5.10 Consolidated Revenue Fund Receipts, 1984–85

Revenue item	*Amount ($'000)*	*Proportion of total receipts (%)*
Commonwealth grants —		
General purpose —		
Tax sharing	417 147	43.8
Health	58 970	6.2
Specific purpose —		
Education	21 277	2.2
Health, youth and community services	36 023	3.8
Other	16 430	1.7
Total Commonwealth Grants	549 847	57.7
State taxation (*a*)	211 253	22.2
Territorial and departmental revenue	80 005	8.4
Recovery of public debt charges	91 960	9.6
Other	20 144	2.1
Total revenue	953 209	100.0

(*a*) Includes payments made by the Victorian Government to the Tasmanian Government on the sale of lottery tickets in Tasmania. The amount in 1984–85 was $16.2 million.

5.3.3 Loan Fund

The Loan Fund is primarily for funding State Government capital works such as building and construction activity and purchase of equipment.

5.9 Consolidated Revenue Fund : Summary ($'000)

Year	*Receipts*	*Expenditure*	*Surplus (+) deficit (–)*	*Aggregate funded deficit at end of year*
1980–81	620 307	627 441	– 7133	56 348
1981–82	683 231	717 628	–34397	90 745
1982–83	764 990	772 735	– 7745	98 490
1983–84	853 107	855 006	– 1899	100 389
1984–85	953 209	952 922	+ 286	100 103

It is also used for making advances of a capital nature to statutory authorities (e.g. Hydro-Electric Commission, Metropolitan Transport Trust) and to the private sector (e.g. tourist development loans). The Loan Fund is also used to fund CRF deficits. It needs to be remembered that loan fund expenditure represents only part of the total government capital works program. (For further information about the full extent of the program see the later section 'State Government Works Program'.)

The two main receipt items into the Loan Fund are new borrowings and Commonwealth General purpose and specific purpose capital grants. Borrowings credited to the Loan Fund are arranged through the Loan Council. This was set up under the Financial Agreement 1927. Representatives of the Commonwealth and each State Government make up the Council. It determines aggregate Commonwealth and State Government borrowing programs and allocates the States' portion among them. The Loan Council arranges the borrowing — it does not borrow money itself.

Loan conversions and redemption through re-issue of the loans are also recorded through the Loan Fund. These transactions merely alter the maturity date of the loan; no additional funds for works purposes become available.

5.11 Loan Fund Receipts, 1984–85 ($'000)

Loan fund receipt item	*Amount*
Loan proceeds —	
New cash part — net (*a*)	54 849
Conversion and redemption	149 554
Loan repayments — State sources	37 286
Commonwealth specific purpose payments	7 795
Commonwealth interest-free grant for capital purposes	36 549
Total	286 033

(*a*) Amount raised and available for new capital works program.

The total amount of loan fund receipts available for funding capital works in 1984–85 was $139.9 m — the net proceeds from new borrowing ($54.8 m) *plus* repayments to Loan Fund ($45.0 m) *plus* the Commonwealth grant for capital purposes ($36.5 m) *less* increase in the Loan Fund balance over the year ($0.6 m).

5.3.4 Public Debt

The public debt represents the indebtedness of the State Government at a point in time. It is the aggregate of loans, borrowed on behalf of the Tasmanian Government, which still have to be redeemed. Under the Financial Agreement of 1927 the Loan Council became the borrowing agent for the States. Also under the Agreement redemption and conversion of State loans is carried out by the National Debt Commission.

At 30 June 1985 Tasmania's public debt was $1 200 358 000 in Australia and US$219 000 raised in New York.

Public debt has grown at a rate of four to five per cent per annum. In terms of public debt expressed at current rates of exchange, less than one per cent was redeemable outside Australia at 30 June 1985. The annual interest liability on the State's public debt at 30 June 1985, at current rates of exchange, was $133.6 million.

5.12 State Public Debt and Annual Interest Liability at 30 June at Current Rates of Exchange ($'000)

	Public debt	
At 30 June	*Amount ($'000)*	*Increase over previous year (%)*
1981	1 020 804	5.2
1982	1 071 606	5.0
1983	1 114 397	4.0
1984	1 154 510	3.6
1985	1 200 687	4.0
	Annual interest liability	
At 30 June	*Amount ($'000)*	*Increase over previous year (%)*
1981	91 494	14.1
1982	105 333	15.1
1983	116 405	10.5
1984	124 349	6.8
1985	133 617	7.5

National Debt Commission

The National Debt Commission manages a sinking fund for redemption of government borrowing. Details of transactions relating to Tasmanian Government debt for 1984–85 are shown below.

National Debt Commission: Receipts and Expenditure Relating to Tasmanian Public Debt, 1984–85 ($'000)

Balance 1 July 1984		160
Add receipts —		
Commonwealth Government contribution	3 194	
Tasmanian Government contribution	11 690	
Interest	16	14 901
Less payments —		
Repurchase and redemption of securities		14 828
Balance 30 June 1985		233

5.3.5 Trust Fund

The Trust Fund comprises numerous individual trust and special accounts. Some merely re-iterate transactions recorded in CRF; others are holding or suspense accounts; while some show in them major Government transactions not elsewhere recorded. In 1984–85 total receipts recorded into the Trust Fund were $833.4 m and expenditure from the Fund $828.9 m. The Trust Fund balance at 30 June 1985 was $57.9 m.

5.3.6 State Government Works Program

The total works program includes, in addition to loan fund expenditure, expenditure of capital nature financed from Commonwealth payments received into trust funds (e.g. housing and roads); works funded out of revenue set aside for specific purpose (e.g. motor taxes paid into the State Highways Trust Fund); and work funded from Departmental sources (e.g. Forestry and Housing Departments). As well the program includes the activities of statutory authorities such as the Hydro-Electric Commission, regional water supply authorities and the Metropolitan Transport Trust. Statutory authorities fund their activities from advances from the Loan Fund, private borrowing (i.e. they borrow in their own name) and from internal sources. In 1984–85 the State Government works program expenditure was $510.8 m. For 1985–86 the Government expected expenditure on the program would be $599 m.

5.13 State Government Works Program: Source of Funds, 1984–85
($'000)

Source	*Amount*
Australian Loan Council borrowings —	
New cash borrowings credited to Loan Fund (net) (*a*)	54 849
Housing	18 250
Total	73 099
Commonwealth Contributions —	
General purpose capital grant (*a*)	36 549
Housing	27 072
Roads	49 963
Education (*a*) (*b*)	6 854
Assistance related to South-West Tasmania	33 525
Other Commonwealth specific purpose payments (*a*) (*b*)	2 152
Total Commonwealth contributions	156 115
Loan repayments (*a*)	37 286
Private borrowings —	
Hydro-Electric Commission	158 629
Tasmanian Development Authority	19 134
Other	13 050
Total private borrowings	190 813
Other funds —	
Motor taxation	18 169
Fuel franchise levy	12 212
Forestry revenue	13 012
Other	10 678
Total	54 071
Less increase in Loan Fund balance	570
Total funds used	510 813

(*a*) Credited to Loan Fund.
(*b*) Part of Loan Fund receipt item 'Commonwealth specific purpose payments'.

Just over 30 per cent of the total funds available for capital works programs in 1984–85 derived from Commonwealth sources. Private borrowings by statutory authorities accounted for a further 37 per cent of the total funds available — the Hydro-Electric Commission's borrowings were a third of the total funds available for governmental works. Receipts credited to Loan Fund (new borrowings for the State, Commonwealth grants and payments and repayments) made up approximately 21 per cent of the total funds available.

Expenditure by the HEC on power development and related works accounted for 34 per cent of spending on Government works programs. Road expenditure and housing made up 19 per cent and 9 per cent of total works expenditure respectively.

5.14 State Government Works Program Expenditure 1984–85

Purpose	*Amount ($'000)*	*Proportion of total (%)*
Hydro-electricity	173 045	33.9
Roads	98 808	19.3
Housing	46 026	9.0
Forestry	39 288	7.7
Education	28 098	5.5
South-West projects	13 192	2.6
Regional water supply	7 713	1.5
Other	104 643	20.5
Total	510 813	100.0

5.4 STATE GOVERNMENT AND STATE AUTHORITY TAXATION

The principal source of State taxation is employer based payroll taxes which accounted for 32 per cent of total State Government and authority tax collections in 1984–85. The next main tax revenue source providing just under 23 per cent of total State tax revenue were stamp duties. These were closely followed by franchise taxes, tobacco and petroleum products providing 6.7 and 6.4 percent of total State tax revenue respectively.

5.15 State Government and State Authority Taxation Receipts, Tasmania ($'000)

Tax	*1983–84*	*1984–85*
Deceased persons' estates duties	340	158
Stamp duties	39 316	48 408
Lottery tax	8 586	16 242
Land tax	8 621	9 975
Motor taxation	17 468	18 169
Fees and licences under the *Licensing Act*	6 552	6 712
Racing and gaming taxes	4 099	4 039
Casino tax and licence fees	3 331	3 815
Pay-roll tax	57 262	68 399
Hydro-Electric Commission — statutory levy	5 944	6 745
Soccer football pools tax	709	773
Business franchise — tobacco	9 561	14 220
Business franchise — petroleum products	13 225	13 568
Sundry licences	18	30
Total	175 033	211 253

5.5 LOCAL GOVERNMENT FINANCE

5.5.1 Rates

The largest proportion of local government revenue comes from rates (49.4 per cent in 1983–84) which are direct charges on owners of property. In Tasmania, it has been usual for rates to be based on the annual value of the land and improvements; that is the gross annual income the owner might obtain by letting the land and its fixtures. Valuations are carried out by the Land Valuation Branch of the State Lands Department, on a rotational basis, with each property being revalued every five years. Tasmania is the only State to use the assessed annual value system of rating despite campaigns in favour of taxing on the unimproved value only which is the system used almost exclusively in New South Wales and Queensland.

5.16 Total Property Valuation of all Local Government Areas, Tasmania, at 1 July ($ m)

Year	*Total capital value*	*Assessed annual value*	*Land value*
1981	7 055.3	435.5	2 309.0
1982	7 702.0	480.4	2 597.5
1983	8 177.9	524.7	2 781.5
1984	8 488.3	589.7	2 985.1
1985	9 511.2	667.0	3 207.6

5.5.2 Commonwealth General Purpose Grants to Local Government

The Commonwealth first started paying general purpose grants to the States for local government in 1974–75. These were paid on the basis of Commonwealth Grants Commission recommendations. At the 1976 Premiers' Conferences the issue of local government receiving a share of personal income tax was raised. It was decided, as a part of the general review and re-arrangement of Commonwealth-State financial relations, that local government should receive a percentage of personal income tax. This amount is then divided among the States according to fixed proportions. (Since 1980–81 the percentage has been two per cent.) These are reviewed from time to time by the Commonwealth Grants Commission. Tasmania's proportion of the total pool for 1984–85 was 3.1997 per cent and amounted to $15.6 m. Distribution of the Tasmanian share between individual local government authorities is the responsibility of the State Grants Commission. Thirty per cent of the pool is distributed according to established criteria such as respective population, size, population density. The balance is allocated according to financial needs as assessed by the State Grants Commission. As far as possible, the grant recommended for a municipality will be an amount which, providing it makes a reasonable rating effort, will enable it to provide services at about the same standard as other municipalities of a similar type. In determining the grants necessary to equalise the fiscal capacity of

5.17 Commonwealth Grants to Local Government, 1984–85

State	*Percentage of total*	*Amount of grant ($'000)*
New South Wales	36.4977	177 574
Victoria	25.4513	123 829
Queensland	16.8606	82 033
Western Australia	9.3897	45 684
South Australia	8.6010	41 847
Tasmania	3.1997	15 568
Total	100.0000	486 534

municipalities, the Commission has adopted the principle that a grant must basically reflect differences between the revenue-raising capacity of municipalities and the relative cost of providing services (expenditure differentials).

The Commission has adopted methods to identify and measure those factors which affect relative rateable capacity and the cost of functioning at a given standard. To the extent to which a municipality is below the standard or faced with higher costs, a *prima facie* case exists for an equalisation component.

5.5.3 Receipts and Outlays

In 1983–84, local government received a total of $95.9 m in rates (Note 5.1). The next most important source of funds for local government was government grants which amounted to just over $42.9 m. The most important single source of government grant revenue is the Commonwealth general purpose tax-sharing grant. In 1983–84 this accounted for 34.3 per cent of all government grants received by local government. 'Ordinary services' include garbage and waste disposal facilities, roads and footpaths, drainage, health inspection, parks, recreation facilities and gardens, cemeteries, community centres, etc.

The trading activities of local government in Tasmania comprise water supply, sewerage and abattoirs. These services are grouped separately as they are operated in a commercial manner, rather than as a 'service' such as parks and gardens. Abattoirs are operated only by the Devonport Council.

5.18 Local Government Revenue and Loan Fund Receipts and Outlay: Ordinary Services, Tasmania, Summary, 1983–84 ($'000)

Transactions	*Amount*
Receipts —	
Rates	52 442.7
Licences, fees and fines	2 324.6
Charges	12 857.3
Government grants —	
Commonwealth general purpose	14 732.5
Specific capital	10 497.6
Specific current	8 497.4
Total government grants	33 727.5
Interest	6 477.1
Transfers from trading activities	1711.8
Other receipts (*a*)	9 365.6
Loan raisings —	
Commonwealth/State	839.7
Other lenders	3 888.9
Total loan raisings	4 728.6
Total revenue and loan receipts	123 635.2
Outlay —	
Outlay on goods, services and land —	
Current	75 143.5
Capital	32 756.6
Total outlay on goods, services and land	107 900.1
Debt charges —	
Interest paid	9 189.5
Debt redemption	5 531.6
Levies paid to governments	4 141.3
Donations paid	97.1
Other	2 042.1
Total outlay from revenue and loans	$ 128 901.8

(*a*) Comprise ex-gratia receipts (non-rateable properties), advances repaid by public sale of land and other fixed assets, contributions and donations received and reimbursements.

5.19 Local Government Trading Activities: Current and Capital Transactions, 1983–84 ($'000)

Transactions	*Amount*
Total trading activities current transactions —	
Current income —	
Rates	433 94.1
Grants	9 195.0
Other (*a*)	5 918.4
Total	58 507.5
Current outlay —	
Working expenses (*b*)	24 316.5
Interest paid	9 104.2
Other (*c*)	15 082.8
Total	48 503.4
Surplus or deficit (–)	10 004.1
Total trading activities capital transactions —	
Source of funds —	
Loans	3 473.9
Grants	1 468.9
Reimbursements	246.0
Other (*d*)	6 636.4
Total	11 825.2
Use of funds —	
Land and fixed assets	8 888.5
Debt redemption	2 935.3
Other	1.4
Total	11 825.2

(*a*) Sales and charges, interest received and transfers from ordinary services.
(*b*) Wages and salaries, purchase of goods and services, payroll tax and depreciation.
(*c*) Levies paid to government and semi-government authorities and transfers to ordinary services.
(*d*) Depreciation allowances, contributions and donations received, advances repaid by public, sale of land and other fixed assets, surplus on current account, reduction in bank balances, etc. A negative amount can arise when, for example, there has been an increase in bank balances (e.g. as a result of loan monies raised but not yet spent).

The principal source of funds used to finance new capital works programs of local government is external borrowing. (Some of the larger authorities finance a substantial part of such activity from internal reserve and revenue

sources.) At the end of 1984 total indebtedness of local government authorities was $174.0 million. Almost 93 per cent of this debt was due to financial institutions such as banks and insurance companies.

5.20 Local Government Long Term Debt ($'000)

Particulars	*1982–83*	*1983–84*
Source —		
Commonwealth-State	10 770	10 634
Public subscription	1 555	1 332
Financial institutions	161 635	161 385
Other	665	671
Total	174 644	174 022
Purpose —		
Ordinary services	85 841	84 911
Water	19 467	19 616
Sewerage	67 760	68 095
Abattoirs	1 557	1 400
Total	174 624	174 022

5.6 STATE AND LOCAL GOVERNMENT FINANCE

This section brings together the transactions of State Government, statutory authorities and local government. This allows the economic impact of their transactions to be assessed as well as the purposes being served by the expenditure. The information is based upon ABS analysis of the budget sector accounts of State Government and the financial transactions of statutory and local government authorities. The basic principle for inclusion in the analysis is that all non-financial public enterprises be included, all funds under their control be analysed and that tables be consolidated to eliminate transfers between funds, accounts and authorities. Statutory authorities included in the Tasmanian analysis include: Agricultural Bank — Government Agency Department, ambulance boards, regional water supply authorities, Hydro-Electric Commission, Metropolitan Transport Trust, marine boards, Totalizator Agency Board, etc.

Table 5.21 shows final consumption expenditure by State and local authorities and their expenditure on new fixed assets. Final consumption expenditure relates to expenditure by public authorities, other than public trading enterprises (e.g. Hydro-Electric Commission) which does not result in the creation of fixed tangible assets (e.g. offices, schools) nor the acquisition of land or other second hand assets. It largely comprises wages, salaries and supplements, purchases of goods and services. Education and health together accounted for just over 50 per cent of state public authority final consumption expenditure in Tasmania during 1982–83. Expenditure on new fixed assets includes purchase of them, spending on creation of such assets (e.g. new construction) whether for replacement or addition. The expenditure on new fixed assets part of the table includes expenditure by units classified as public trading enterprises.

5.21 State and Local Authorities: Final Consumption and Expenditure on New Fixed Assets by Purpose, 1982–83 ($m)

Purpose	*Amount*	*Per Cent*
Final Consumption Expenditure		
General public services —		
Law, order and public safety	58.6	9.9
General administration n.e.c.	62.6	10.5
Education —		
Primary and secondary	169.0	28.4
Other	73.4	12.4
Health	132.6	22.3
Social security and welfare	9.9	1.7
Housing and community amenities	6.5	1.1
Recreation and culture	23.3	3.9
Economic services —		
Soil and water resource management	14.9	2.5
Forest resource management	9.9	1.7
Other agriculture and fishing	12.9	2.2
Other	20.2	3.4
Other purposes	0.9	0.2
Total	594.2	100.0
Expenditure on New Fixed Assets		
General public services —		
Law, order and public safety	2.5	0.9
General administration n.e.c.	14.9	5.2
Education —		
Primary and secondary	6.7	2.4
Other	8.3	2.9
Health	9.4	3.3
Social security and welfare	0.2	0.1
Housing and community amenities		
Recreation and culture	40.2	14.1
Economic services —		
Forest resource management	9.7	3.4
Mining, manufacturing, construction	99.1	34.8
Electricity and gas		
Water supply		
Road systems and regulation	87.5	30.7
Urban transit systems		
Other	3.5	1.2
Other purposes	2.5	0.9
Total	284.6	100.0
Public trading enterprises	133.8	47.0
General government	150.8	53.0

5.7 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Local Government Finance, Tasmania, (5501.6), annual.

ABS Publications Produced by the Canberra Office:

Commonwealth Government Finance, Australia, (5502.0), annual.

Government Financial Estimates, Australia, (5501.0), annual.

State and Local Government Finance, Australia, (5504.0), annual.

Taxation Revenue, Australia. (5506.0), annual.

Government Finance Statistics, Australia, (5512.0), annual.

Other Publications:

Advisory Council for Inter-Government Relations, *Annual Report*, AGPS, Canberra.

Budget Paper No. 7, *Payments to or for the States, the Northern Territory and Local Government Authorities*, AGPS, Canberra.

Commonwealth Grants Commission, *Report on State Tax Sharing Entitlements*, AGPS, Canberra.

Groenewegen, P., *Public Finance in Australia*, Prentice-Hall, Sydney, 1979.

Harris, C.P., ed., Advisory Council for Inter-Government Relations, *Relationships between Federal and State Governments in Australia*, AGPS, Canberra, 1979.

Mathews, R., *Revenue Sharing in Federal Systems*, ANU Canberra, 1980.

Report of the Auditor-General and the Statement of Public Accounts, Tasmanian Government Printer, Hobart.

Budget Paper No. 2, *Consolidated Revenue Fund Summary of Estimated Expenditure and Estimates Revenue*, Government Printer, Hobart.

APPENDIX

5.23 Metropolitan Water Board: Income and Expenditure 1983–84 ($'000)

Item	*Amount*
Income —	
Municipal contributions (a)	9 946
Sale of water to other consumers	2 202
State government subsidy	1 243
Other	877
Total	14 267
Expenditure —	
Reimbursement municipal operating expenses	3 615
Board operating expenses	2 491
Interest	5 651
Other	2 124
Total	13 882

(a) Formula revenue contributions by Hobart, Clarence, Glenorchy and Kingborough.

Notes:

5.1 The ABS compiles statistics of the funding and expenditure activities of local government from authorities' accounts and supplementary questionnaires. The statistics are compiled according to national standards designed to generate local government finance statistics which are comparable over time and between States. The statistics are designed to reflect cash receipts and payments of local government. Items not forming a part of revenue (e.g. refunds for over-payments, suspense account items) are netted off. Also, the ABS makes a distinction in its local government finance statistics between ordinary services and trading activities. The latter, in Tasmania, comprise water supply, sewerage and abattoirs.

Regional Water Supply Authorities

Water supply in Tasmania was once the exclusive responsibility of local government. Three statutory authorities now operate regional bulk supply schemes:

Metropolitan Water Board: This authority is responsible for the bulk water supply to local government authorities in the Urban Hobart and adjacent areas. Overall control of water supply to Hobart, Clarence, Glenorchy and Kingborough is vested in the Board. The Councils retain responsibility for reticulation to consumers. The Board also sells water to major industrial consumers and authorities of Brighton, Green Ponds, New Norfolk, Richmond and Sorell.

5.24 North-West Regional Water Authority: Income and Expenditure 1983–84
($'000)

Item	*Amount*
Income —	
Municipal contributions	4 402
State government subsidy	1 500
Other	329
Total	7 863
Expenditure —	
Municipal operating expenses	1 751
Authority operating expenses	1 041
Interest	3 695
Other	470
Total	6 957

North-West Regional Water Authority: The *North-West Regional Water Act* 1976 established this Authority. It is responsible for the supply of water to the local government authorities of Circular Head, Devonport, Kentish, Latrobe, Penguin, Ulverstone and Wynyard. Burnie has remained outside the authority.

Rivers and Water Supply Commission: Among the functions of the Commission is the examination and recommendation subsidies to local government for the operation of water supply, sewerage and drainage schemes. The Commission is also responsible for operating a number of regional water supply schemes. Its North Esk Regional Water Supply Scheme provides bulk water to St Leonards, Lilydale and Georgetown and the townships of Hadspen and White Hills. The west Tamar Scheme provides water to the urbanised area of Beaconsfield, while on the east coast the Commission runs the Prosser River Water Supply. This currently supplies the township of Orford with water. Summary details of financial transactions between the local government and the Commission appear in the next table:

5.25 Rivers and Water Supply Commission: Selected Financial Transactions 1983–84
($'000)

Item	*Amount*
Subsidies provided to local government for water, sewerage and drainage	3 220
North Esk Regional Water Supply —	
Income	2 571
Expenditure	2 484
Prosser River Scheme —	
Income	101
Expenditure	90
West Tamar Water Supply —	
Income	1 014
Expenditure	898

Chapter 6

POPULATION

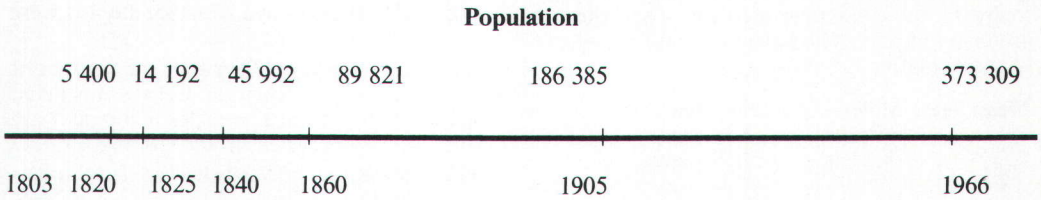
		Page No.
6.1	**Tasmania's Population**	109
6.1.1	Historical	109
6.1.2	1980–1984	114
6.2	**Fertility**	117
6.3	**Life Expectancy and Mortality**	118
6.3.1	Life Expectancy	118
6.3.2	Mortality	118
6.4	**Population Projections**	119
6.5	**Tasmania's Migrant Population, A 1981 Census Profile**	120
6.5.1	Birthplace	120
6.5.2	Where They Live	120
6.5.3	Age	120
6.5.4	Period of Residence	121
6.5.5	Proficiency in Speaking English	121
6.5.6	Employment and Occupation	121
6.6	**References**	122

Chapter 6

POPULATION

6.1 TASMANIA'S POPULATION

The first sixty years of white settlement saw a fairly rapid population build-up, more than half of whom were, or had been, convicts. Although this rate of increase then diminished, by 1905 — 45 years later — the number of people had again doubled. With a birth rate of less than one per cent to 1945 it took another 65 years to double again.



Population growth, 1820–1966, Tasmania

6.1.1 Historical

The first human inhabitants of what is now Tasmania arrived about 25 000 years ago, crossing the land bridge that then connected Tasmania to the mainland. They settled in tribal groups across the whole island. Total numbers, before white settlement, have been estimated to have never exceeded 5000.

White settlement began in 1803 to secure British strategic interests against the French. Tasmania was settled as a gaol and this largely governed the way the colony was run. Most of the population were convicts or government officials. Famine was not unknown and the hand-to-mouth existence of the colony required accurate population counts. Musters of the convicts were held weekly, on Sunday after divine service, at which time the convicts would receive their weekly ration. A general muster for the whole population was held monthly until 1813, when an annual muster was introduced.

Immigration to Tasmania in the early years was mostly involuntary. Originally, convicts were sent from Sydney but from 1819 onwards direct shipments began from England.

Settlement was confined to Hobart and Launceston and surrounding districts. The gentry — farmers, using convict labour — found profitable occupations in growing wool or providing the Sydney market with its grain. Whaling and sealing and associated activities also provided employment. However, the colonial economy was kept afloat by the heavy expenditure of the Imperial Government on the prison establishment.

Increasing numbers of convicts arrived from England, reaching a peak in the 1840's when over 5 000 arrived in one year. By the time transportation was abolished in 1853, 65 000 of the 150 000 convicts transported to Australia had been sent to Tasmania; over 80 per cent of them were male. At the Census of 1847, just over 50 per cent of the

CENSUS 1881, TASMANIA

6.1 Age of the Population

Age group (years)	*Males*	*Females*	*Persons*	*%*
0–4	6 518	6 602	13 120	11.3
5–19	22 581	21 759	44 340	38.3
20–59	25 798	23 148	48 946	42.3
60 and over	6 265	3 034	9 299	8.0
Total	61 162	54 543	115 705	100.0

However, the Superintendent of the Census, Mr E.C. Nowel said in his report: '.... a very considerable number of persons, not only in the uneducated, but even in the educated classes, really do not know their own age —and there are many parents who have forgotten the ages of their children.'

Mean age: Males; 26.4 years
Females; 23.2 years
Persons; 24.89 years

6.2 Country of Birth

Country	*Number*
Tasmania	79 991
Other Australian Colonies	3 614
British Isles:	
England and Wales	17 307
Scotland	3 744
Ireland	7 192
Total British Isles	28 243
Germany	782
Other Europe	413
China	844
Other	1 818
Total	115 705

6.4 Population of Larger Towns

Town	*Number*
Hobart	23 633
Launceston	12 752
Longford	1 286
Westbury	1 156
New Norfolk	1 036
Campbell Town	948
Waratah	874
Deloraine	836
Latrobe	711
Oatlands	673
Evandale	564

Dwellings: material of outer walls:
7 672 brick and stone
14 041 wood, iron, or lath and plaster
996 slab, bark or mud huts
181 tents or canvas roofs

Sickness and Infirmity

'The cases of sickness returned on the day of the Census were 1 751; 913 being those of males, and 838 those of females. Out of every 10 000 persons of both sexes living on that day 151 were therefore sick...

There is reason to believe that the amount of sickness at the time when the Census was taken was above the average, measles being, as I am informed, very prevalent in the Colony.'

Other statistics collected showed Tasmanians had a high rate of illness in the categories 'deaf and dumb', 'blind', 'lunatic' and 'idiot'.

'Sufficient cause for these excesses in Tasmania may be found in the circumstances connected with the early settlement of the Colony, which affected the physical condition of a large portion of the older inhabitants and their offspring; and in the fact that for many years there was a tendency among the most vigorous part of the population to migrate to other countries, especially Victoria.'

— E.C. NOWELL, Superintendent of the Census.

* The number of Tasmanian-born living in Victoria at the Census of 1881 was nearly 12 000.

6.3 Occupations

Occupation	*Males*	*Females*	*Persons*
Professional	1 529	791	2 320
Domestic	437	353	790
Commercial	3 595	289	3 884
Agricultural	16 118	3 290	19 408
Industrial	12 602	1 882	14 484
Others:			
Labourers-branch undefined	3 968	2	3 970
Other	445	69	514
Persons of Property or rank not returned under any office or occupation	285	274	559

total population of 70 000 people were, or had been, convicts. Less than 20 per cent were free immigrants.

The 1850's saw a change of direction for Tasmania. The abolition of transportation not only led to the fall off in the number of people arriving but also to a reduction in government spending. The gold boom in Victoria drew many people away from the colony. The export trade collapsed as economic development on the mainland led to replacement of commodities once supplied by Tasmania. The wool industry, the only export industry to maintain some vigour, had to contend with sharply falling prices. Population growth slumped as the high rate of natural increase was partially offset by emigration to the mainland.

The mining boom, sparked off by the discovery of tin at Mt Bischoff and of gold at Beaconsfield in the early 1870's, provided a turning point for the economy. Railway construction quickened the pace of growth. Population began to spread beyond the Launceston–Hobart axis. The north-west farmers, who had begun to settle the area in the 1850's, found new markets on the mainland for their potatoes. Butter factories followed the growth of dairying, though mainly supplying the local market. The provision of timber to the quickly-growing mainland cities was also an important industry. The settlement of the Huon was associated with the development of the apple industry. Further impetus was given to this industry by the advent of refrigerated shipping, 1891 saw the first apple exports to Britain.

The economic growth in the 1870's and 1880's was reflected in a rapidly increasing population with immigrants, including Chinese, seeking wealth in Tasmania. The 15 years between 1861 and 1876 saw the population increase from 90 000 to 105 000 or little over one per cent a year. The fifteen years, 1876 to 1891, saw the population reach 147 000, an annual rate of increase more than double the previous period.

The economic depression of the 1890's, brought on by a fall in prices of export commodities and a drying up of overseas investment, while severe, had less effect than in other States. Conditions were ameliorated by a new mining boom, centred on silver finds at Zeehan and copper at Mt Lyell. At its peak in the late 1890's, the West Coast towns had a population in excess of 20 000. Tasmania's relative prosperity was reflected in a net immigration in excess of 4 000 a year from 1896 to 1899.

Federation brought both advantages and disadvantages to Tasmania. While primary produce such as potatoes, fruit, hops, timber, butter and jam had freer access to mainland markets, many small manufacturers faced competition from mainland firms. The West Coast mining boom petered out; by 1911 less than 14 000 people lived in the Lyell and Zeehan districts. Economic stagnation was reflected in a drift of people to the mainland.

Hydro-industrialization came to be seen as the way out of the economic bind that Tasmania found itself in. The Electrolytic Zinc Co. was the first of many industries attracted to Tasmania by the prospect of cheap power. However, this was not sufficient to alleviate the economic gloom of the 1920's and 1930's. Recession particularly afflicted rural industries, with the slump in agricultural export prices predating the onset of general economic depression.

In the 35 years between 1910 and 1945, Tasmania's population grew at only 0.7 per cent a year, well under half the rate achieved in the previous 35 years. Improved standards of public health, which brought a decline in both the general death rate and in infant mortality, was offset by a declining birth rate and continued movement of Tasmanians interstate.

Since World War Two, Tasmanians have shared in the prosperity of the Australian economy. The rapid expansion of government services and the growth of the manufacturing industry, particularly along the North-West Coast provided jobs. Despite the decline in rural employment due to mechanisation of many rural activities, farmers enjoyed a prosperity unknown before the war. In the 1960's and 1970's mining re-emerged as a growth sector in the Tasmanian economy. Tourism emerged as a major sector in the 1970's. Despite this growth, Tasmania still tended to lag behind the mainland States. The number of overseas immigrants attracted to Tasmania was far less in proportion than other States; and the non-British born migrants tended to be of northern rather than southern European origin. This pattern has resulted in Dutch and German born people forming the two largest non-British born migrant groups recorded at the 1981 Census for Tasmania.

The post-war baby boom and the significant net migration gain contributed to an average annual population increase of 1.5 per cent in the 35 years 1945–1980, more than double the pre-war experience. However, Tasmania still lagged behind the Australian average annual increase of two per cent over the same period. As a result the proportion of the total Australian population living in Tasmania has decreased from 3.4 per cent in 1945 to 2.9 per cent in 1980.

CENSUS 1981, TASMANIA

6.5 Age of the Population

Age group (years)	*Males*	*Females*	*Persons*	*%*
0–4	17 054	16 393	33 447	8.0
5–19	58 372	56 202	114 574	27.3
20–59	107 483	105 403	212 886	50.8
60 and over	25 732	32 318	58 050	13.9
Total	208 641	210 316	418 957	100.0

6.6 Marital Status of the Population

Status	*Males*	*Females*	*Persons*	*%*
Never married —				
Aged less than 15 years	56 025	53 579	109 604	26.2
Aged 15 years and over	45 131	34 936	80 067	19.1
Now married	95 072	94 370	189 442	45.2
Separated not divorced	3 499	4 128	7 627	1.8
Divorced	4 898	5 957	10 855	2.6
Widowed	4 016	17 346	21 362	5.1
Total	208 641	210 316	418 957	100.0

6.7 Families by Family Type

Family unit	*Male head*	*Female head*	*Total families*
Head only —			
Aged less than 30	4 415	3 134	7 549
Aged 30–44	2 726	1 120	3 846
Aged 45 and over	6 248	12 887	19 135
Total	13 389	17 141	30 530
Head, no spouse and —			
1 dependant	567	3 213	3 780
2 dependants	319	2 275	2 594
3 dependants	102	987	1 089
4 dependants	34	297	331
5 or more dependants	10	109	119
Total	1 032	6 881	7 913
Head and spouse only	28 440	2 109	30 549
Head, spouse and —			
1 dependant	10 206	520	10 726
2 dependants	16 907	618	17 525
3 dependants	8 368	252	8 620
4 dependants	2 481	64	2 545
5 or more dependants	717	24	741
Total	38 679	1 478	40 157
Head, no spouse, other adult(s) and —			
No dependants	1 954	4 139	6 093
1 dependant	204	951	1 155
2 dependants	95	497	592
3 dependants	32	172	204
4 dependants	15	69	84
5 or more dependants	6	42	48
Total	2 306	5 870	8 176
Head, spouse, other adult(s) and —			
No dependants	10 592	404	10 996
1 dependant	5 189	147	5 336
2 dependants	3 084	82	3 166
3 dependants	1 191	40	1 231
4 dependants	365	10	375
5 or more dependants	155	5	160
Total	20 576	688	21 264
Total	104 422	34 167	138 589

6.8 Country of Birth

Country	Males	Females	Total
Australia	183 359	188 265	371 624
UK and Ireland	11 839	11 450	23 289
Europe —	6 868	4 949	11 817
Austria	251	148	399
Czechoslovakia	199	95	294
Germany	1 039	897	1 936
Greece	429	356	785
Hungary	197	100	297
Italy	835	508	1 343
Netherlands	1 577	1 431	3 008
Poland	801	474	1 275
Yugoslavia	536	254	790
Europe n.e.1	1 004	686	1 690
Asia —	1 169	1 258	2 427
India	186	217	403
Malaysia	218	203	421
Asia n.e.1	765	838	1 603
America (*a*)	569	563	1 132
Africa	494	476	970
Oceania (*b*)	1 525	1 469	2 994
Not stated or at sea	2 818	1 886	4 704
Total	208 641	210 316	418 957

(*a*) Includes North and South America.
(*b*) Includes New Zealand.

6.9 Population in Urban Centres and Localities

Town	1947	1981
Beaconsfield	722	898
Beauty Point	294	998
Bicheno	121	674
Bridgewater	267	6 880
Bridport	330	885
Burnie–Somerset	7 976	20 368
Campbell Town	770	879
Cressy	381	640
Currie	513	859
Cygnet	773	715
Deloraine	1 586	1 923
Devonport	7 497	21 424
Dodges Ferry	n.a.	743
Dover	586	570
Evandale	574	614
Geeveston	1 360	860
George Town	292	5 592
Grassy	352	780
Gravelly Beach	289	535
Hadspen	146	908
Hobart	76 534	128 603
Huonville–Ranelagh	1 049	1 347
Kingston–Blackman's Bay	722	8 556
Latrobe	1 716	2 401
Lauderdale	n.a.	2 117
Launceston	40 442	64 555
Legana	119	964
Longford	1 085	2 027
Luina	n.a.	522
New Norfolk	2 934	6 243
Oatlands	679	545
Penguin	938	2 616
Perth	558	1 229
Pontville	194	908
Port Sorell	194	859
Queenstown	3 598	3 714
Railton	627	857
Richmond	414	587
Rosebery	1 058	2 675
St Helens	713	1 005
St Marys	746	653
Savage River	n.a.	1 141
Scottsdale	1 194	2 002
Seven Mile Beach	62	682
Sheffield	656	945
Snug	593	684
Sorell–Midway Point	522	2 544
Stanley	797	603
Triabunna	330	924
Tullah	206	1 894
Turners Beach	n.a.	842
Ulverstone	3 432	9 413
Westbury	908	1 161
Wynyard	1 858	4 582
Zeehan	767	1 750

6.1.2 1980–1984

The rate of growth of Tasmania's population since 1980 has continued to lag behind that of Australia as a whole. Emigration to other States, particularly of the 19–34 age group, has been the main reason for Tasmania's slower growth rate. However, 1984 saw a turnaround in the traditional migration pattern from a loss to a net gain of over 1 000 people, which boosted Tasmania's growth rate to just below that for Australia as a whole.

Trends in population distribution apparent in the 1970's have continued into the 1980's. The move away from the inner city areas of Hobart and Launceston to the outer suburbs is reflected in the static or declining populations of the core city municipalities of Hobart, Glenorchy and Launceston and the above average increases in the outer city municipalities of Kingborough, Clarence and Brighton in the South, and Lilydale, St Leonards and Beaconsfield in the North.

The drift from rural areas to urban areas has also continued with many country municipalities, particularly in the South, losing population. This has been partially offset by the move of city workers to municipalities within commuting distance. Municipalities such as Richmond in the South, Evandale in the North and Kentish on the North West Coast have benefitted from this trend. The drift to city areas has also been checked by the move of retired people to resort centres on the coast. Municipalities such as Scottsdale (Bridport), Portland (St Helens) and Glamorgan (Bicheno) have experienced an influx of retired people as permanent residents.

On a regional basis, the distribution of Tasmania's population has remained remarkably constant since the end of World War II. Tasmania is the most decentralised state, in terms of population, in Australia, with nearly 60 per cent of the population living outside the Hobart Statistical Division. The Burnie–Devonport Statistical District is currently Tasmania's fastest growing area, with continued industrial development combined with the attractiveness of the North-West towns as retirement centres encouraging the above average growth.

However, as a proportion of the total State population the Mersey–Lyell Region (which contains the Burnie–Devonport Statistical District) with 25 per cent of the population and the Hobart and Southern Region (47 per cent) have gained only marginally on the Northern Region (28 per cent).

6.10 Estimated Resident Population and Components of Population Change, Tasmania

Natural increase ('000)

Period	Live births	Deaths	Total natural increase
Year ended 30 June —			
1980	6.6	3.2	3.5
1981	7.1	3.5	3.6
1982	7.1	3.3	3.8
1983	7.0	3.4	3.6
1984	7.1	3.4	3.7
1985 *p*	7.2	3.6	3.6

Net migration ('000)

Period	Overseas	Interstate	Total
Year ended 30 June —			
1980	0.6	– 1.0	– 0.4
1981	1.3	– 1.0	0.3
1982	0.9	– 2.2	– 1.2
1983	0.6	– 1.4	– 0.8
1984	0.6	0.6	1.1
1985 *p*	0.7	0.4	1.1

Population ('000)

Period	At end of period	Increase (a)	
		Number	Per cent
Year ended 30 June —			
1980	423.6	3.1	0.67
1981	427.2	3.9	0.86
1982	429.8	2.6	0.59
1983	432.6	2.8	0.67
1984	437.3	4.7	1.09
1985 *p*	442.1	4.7	1.07

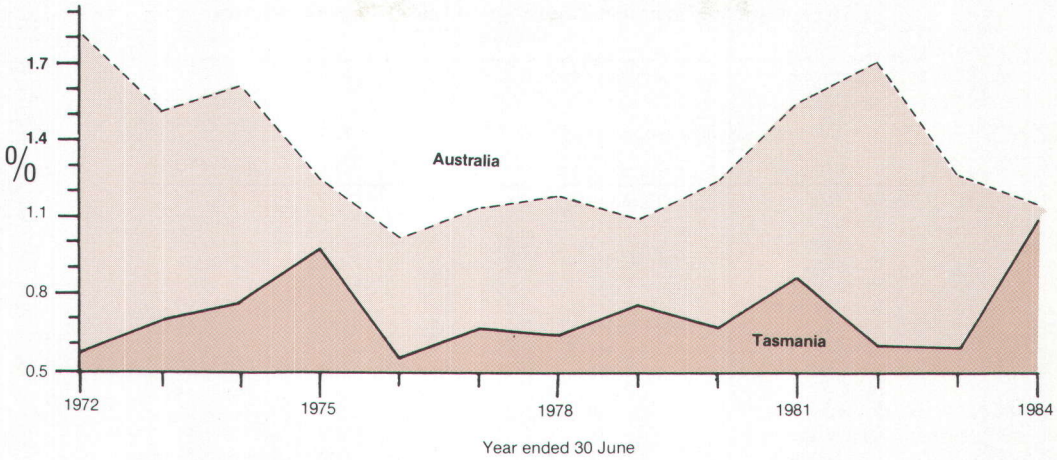
(*a*) For years prior to 1981, differences between the total increase shown and the sum of natural increase and net migration are due to the distribution of intercensal discrepancy.

6.11 Annual Average Growth Rates, Tasmania

Period	Population		Annual average growth rate (%)
	Beginning of period	End of period	
1947–1954 (*a*) (*b*)	257 080	308 750	2.7
1954–1961 (*a*) (*b*)	308 750	350 340	1.8
1961–1966 (*a*) (*b*)	350 340	371 440	1.2
1966–1971 (*a*)	371 440	390 410	1.0
1971–1976 (*c*)	398 100	412 300	0.7
1976–1981 (*c*)	412 300	427 300	0.7

(*a*) Census counted population. (*b*) Prior to 1966 excludes full-blood Aboriginals.
(*c*) Estimated resident population.

Annual population growth rates, Australia and Tasmania, 1972–1984

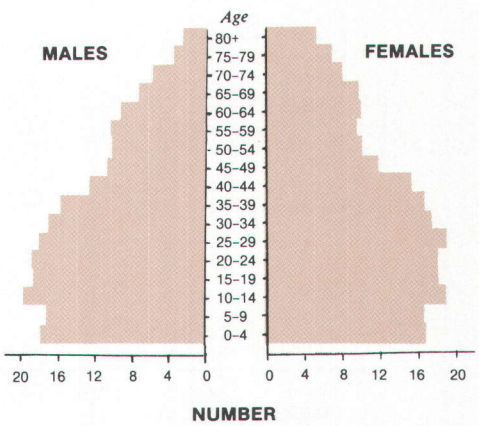


6.12 Estimated Resident Population in Statistical Divisions, Tasmania, at 30 June

Division	*1981*	*1985*	*Annual average rate of change 1981 to 1985 (%)*
Greater Hobart Statistical Division	171 110	178 050	1.00
Southern Statistical Division	29 950	30 380	0.36
Greater Launceston Statistical Subdivision	86 810	89 740	0.83
Central North Statistical Subdivision	15 870	16 190	0.50
North Eastern Statistical Subdivision	14 890	15 440	0.91
Northern Statistical Division	117 570	121 370	0.80
Burnie — Devonport Statistical Subdivision	72 890	76 390	1.18
North-Western Rural Statistical Subdivision	22 550	23 000	0.50
Western Statistical Subdivision	13 130	12 910	0.42
Mersey-Lyell Statistical Division	108 570	112 300	0.85
TASMANIA	427 200	442 100	0.86

6.13 Age Distribution, Tasmania, 1985

Age group (years)	*Males*	*Females*	*Persons*	*%*
0–4	18 122	17 532	35 654	8.1
5–9	17 255	16 603	33 858	7.6
10–14	19 481	18 933	38 414	8.7
15–19	19 086	18 448	37 534	8.5
20–24	19 275	19 226	38 501	8.7
25–29	18 432	18 372	36 804	8.3
30–34	17 396	17 003	34 399	7.8
35–39	16 522	16 114	32 636	7.4
40–44	13 170	12 740	25 910	5.8
45–49	10 976	10 597	21 573	4.9
50–54	10 138	9 825	19 963	4.5
55–59	10 403	10 051	20 454	4.6
60–64	9 365	10 150	19 515	4.4
65–69	7 415	8 621	16 036	3.6
70–74	5 975	7 516	13 491	3.1
75–79	3 673	5 220	8 893	2.0
80–over	2 765	5 711	8 476	2.0
All ages	219 449	222 662	442 111	100.0



Age Distribution, Tasmania, 1985

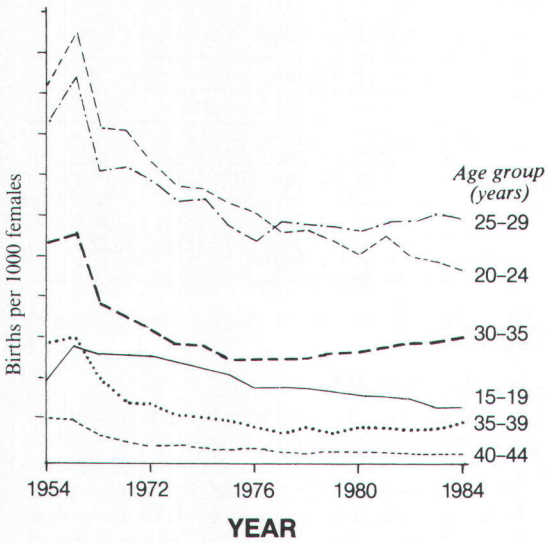
6.14 Estimated Resident Population in Local Government Area at 30 June

Local government area		*1981*	*1985p*	*Annual average rate of change 1981 to 1985 (per cent) (a)*
Greater Hobart — Southern Region				
Hobart	(H)	47 890	47 750	–0.07
Glenorchy	(H)	41 860	41 700	–0.10
Clarence	(H)	45 550	47 460	1.03
Brighton	(H) (S)	9 640	11 740	5.05
Kingborough	(H) (S)	17 510	20 060	3.46
New Norfolk	(H) (S)	9 800	9 750	–0.13
Sorell	(H) (S)	5 420	6 150	3.21
Bothwell	(S)	730	700	–1.04
Bruny	(S)	390	390	—
Esperance	(S)	3 170	3 200	–0.24
Glamorgan	(S)	1 490	1 580	1.48
Green Ponds	(S)	1 000	1 050	1.23
Hamilton	(S)	2 570	2 460	–1.09
Huon	(S)	4 860	4 940	0.41
Oatlands	(S)	2 070	1 980	–1.11
Port Cygnet	(S)	2 290	2 420	1.39
Richmond	(S)	1 830	1 980	1.99
Spring Bay	(S)	1 910	1 950	0.52
Tasman	(S)	1 080	1 170	2.02
Northern Region				
Launceston		61 760	62 460	0.28
Beaconsfield		14 150	15 220	1.84
Deloraine		5 020	5 150	0.64
Evandale		1 960	2 200	2.93
George Town		7 310	7 350	0.14
Longford		5 810	6 110	1.27
Westbury		6 670	7 440	2.77
Campbell Town		1 540	1 530	–0.16
Fingal		2 920	2 920	—
Flinders		1 090	1 100	0.23
Portland		2 130	2 430	3.35
Ringarooma		2 330	2 370	0.43
Ross		530	500	–1.45
Scottsdale		4 350	4 590	1.35
Mersey–Lyell Region				
Burnie		20 400	21 210	0.98
Circular Head		7 910	8 040	0.41
Devonport		23 930	25 300	1.40
Kentish		4 350	4 580	1.30
King Island		2 720	2 400	–3.08
Latrobe		5 630	5 870	1.05
Penguin		5 270	5 440	0.80
Ulverstone		13 110	13 880	1.44
Wynyard		12 120	12 670	1.12
Gormanston		130	100	–6.35
Queenstown		3 740	3 860	0.79
Strahan		440	480	2.20
Waratah		2 150	2 060	–1.06
Zeehan		6 670	6 410	–0.99
Tasmania		427 200	442 100	0.86

(*a*) Annual average rate of increase or decrease (–) in population over the four year period 1981 to 1985.

6.2 FERTILITY

The late 1950s and early 1960s was a period of peak fertility in the post-war era before a decline in the mid 1960s, which continued steadily through the 1970s. The trend since 1980 indicates that a period of stability may have been reached, but at a level only a little over 50 per cent of the 1961 rate.



Number of Births per 1 000 Females, Tasmania, 1954–1984

Whereas prior to 1977 the most fertile age group was 20–24, this is now the 25–29 age group. The fertility rate of the 20–24 age group has continued to decline while that of the 25–29 and 35–39 age groups have risen slightly. Several factors have contributed to these trends including later marriage and an increasing period between marriage and the birth of the first child.

Since the early 1960s the median age for spinster brides has increased from 21.2 years to 22.8 years in 1984. In the mid 1960s the median duration between marriage and the birth of the first child was about 12 months. This increased during the 1970s and by 1984 it had exceeded two years.

6.15 Average Age of Brides (years)

Year	*Spinster*	*All Brides*
1979	21.4	24.8
1981	21.9	25.0
1983	22.5	25.7
1984	22.8	26.2
1985	22.8	26.2

6.16 Duration of Marriage and Percentage of First Births, Tasmania

Duration of marriage	*1979*	*1981*	*1984*
Under 1 year	25.2	25.3	21.8
Years — 1	20.4	21.4	21.5
— 2	16.5	16.4	18.4
— 3	14.3	11.6	12.6
More than 3 years	23.7	25.3	25.6

Although the fertility rate has been falling and is still currently below replacement level, the fertility rate for Tasmanian women is higher than the national rate, and has been for a number of years.

6.17 Net Reproduction Rates, Tasmania and Australia

Year	*Tasmania*	*Australia*
1976	0.988	0.981
1982	0.958	0.925
1984	0.971	0.885

Fertility — Now and 100 Years Ago, Tasmania

	1884	*1984*
Population (*a*) —	128 380	437 200*p*
Males	68 056	217 100*p*
Females	60 324	220 100*p*
Births —		
Males	2 327	3 582
Females	2 251	3 550
Total	4 578	7 132
Ex-nuptial births (*b*) —		
Males	107	560
Females	97	526
Total	204	1 086
Proportion of total births	4.5	15.2
Crude birth rate (per 1 000 mean population)	35.7	16.3

(*a*) Mean population for year ending 31 December.
(*b*) Births out of wedlock.

6.3 LIFE EXPECTANCY AND MORTALITY

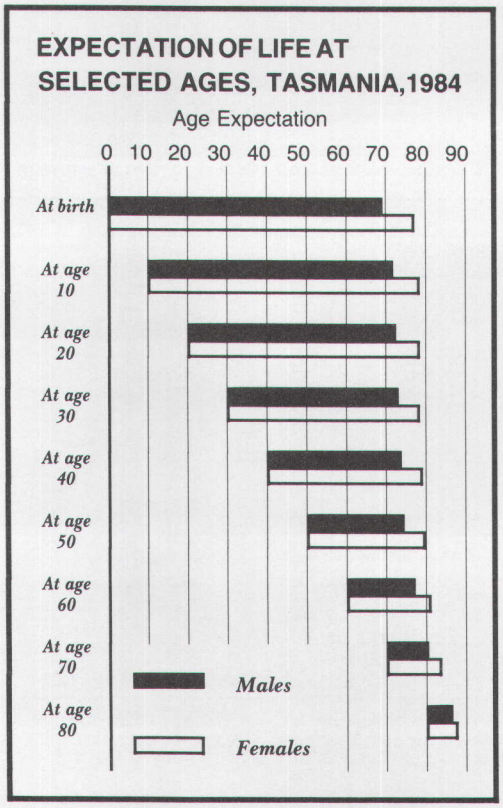
6.3.1 Life expectancy

A measure often used to indicate changes in the health status of a community or to make comparisons between communities is life expectancy. This is the number of years that a person can, on average, expect to live past his present age, and is based on death rates of the population.

Reflecting the high infant mortality rates and death rates during the early years of life, life expectancy at age 0 in the early part of this century was less than at age 5. Improvements in hygiene and health care substantially reducing infant and early age death rates, has increased life expectancy at age 0 for both males and females. Expectation of life at age 0 for males has improved by 17.4 years since the beginning of the century and for females by 20.9 years.

At higher ages, the changes were minor until the 1970s. In 1970–72 life expectancy for males aged 60 was 15.4 years compared with 14.3 years in the first decade of this century and for females 19.7 compared with 16.2 years. Since 1970–72 there has been a significant increase in life expectancy of 60 year olds; for males it has increased by 2.6 to 18.0 in 1984 and for females by 2.8 years to 22.5 years. Much of this improvement can be related to prevention and advances in treatment of diseases associated with the circulatory system such as heart attacks and strokes.

The increase in life expectancy means there are an increasing number of elderly people in the population, many of whom will be needing support services.



6.18 Life Expectancy, Australia (Years)

Age (Years)	1901–1910		1984	
	Males	Females	Males	Females
0	55.2	58.8	72.6	79.7
5	57.9	58.6	68.5	74.8
10	53.5	56.0	63.6	69.9
20	44.7	47.5	54.0	60.1
40	28.6	31.5	35.1	40.7
60	14.3	16.2	18.0	22.5
70	8.7	10.0	11.3	14.7

At all ages females have a higher life expectancy than males.

6.3.2 Mortality

The 1970s and early 1980s have been years of considerable improvement in mortality rates, particularly in the higher age groups, and infants. Improvements in age-specific death rates have been most marked among the 70–79 age group for both males and females where the decrease has been of the order of 10 per cent, and among infants. The infant mortality rate has fallen quite dramatically, from 20.3 per thousand live-male births in 1960–62 to 14.3 in 1984 and from 17.3 to 8.5 among females. Nevertheless, the infant mortality rate is higher in Tasmania than for Australia.

6.19 Age-Specific Death Rates, Tasmania

Age group (years)	Males		Females	
	1970–72	1984	1970–72	1984
Under 1	17.8	14.2	11.5	9.3
1–4	1.0	0.5	0.7	0.5
5–9	0.5	0.2	0.4	0.1
10–14	0.6	0.5	0.3	0.2
15–19	2.4	1.2	0.6	0.4
20–24	2.0	1.5	0.5	0.4
25–29	1.8	1.0	0.8	0.7
30–34	1.8	1.5	0.8	0.5
35–39	2.1	2.0	1.3	1.0
40–44	3.4	3.2	1.9	1.3
45–49	5.3	4.3	3.0	2.9
50–54	9.5	7.6	5.6	4.7
55–59	15.5	14.6	8.0	7.2
60–64	25.2	21.4	12.4	11.7
65–69	39.5	36.2	21.3	19.6
70–74	62.2	56.7	36.5	23.0
75–79	91.9	77.5	60.9	47.9
80 and over	164.0	146.0	135.5	120.4

6.4 POPULATION PROJECTIONS

Tasmania is projected to have an annual average population growth rate of less than one per cent up to the year 2021. In the period 1984 to 2001 the annual average growth rate is estimated at 0.86 per cent and between 2001 and 2021, 0.48 per cent.

These projections and accompanying tables are based on assumptions about four key demographic variables; mortality, which takes account of average 1981–1983 mortality rates, State variations and annual long term rates of population decline; fertility, which applies a linear trend to Tasmanian fertility rates; overseas migration, where a net annual migration of 50 000 for Australia up to 1986–87 and 100 000 thereafter is assumed; and interstate migration, where a small net flow of 2600 per year is assumed.

Tasmania's projected growth rates are the lowest of all States as well as both Territories; whereas it had 2.8 per cent of Australia's popuiation in 1984, by the year 2021 it will have fallen to 2.4 per cent.

6.20 Population Distribution, States and Territories 1984–2021 (per cent)

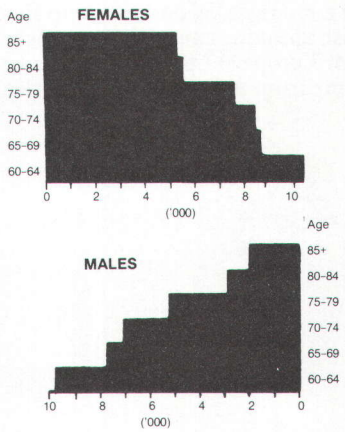
States and Territories	*1984*	*2001*	*2021*
NSW	34.8	34.0	33.5
Vic.	26.2	25.3	24.2
Qld	16.1	17.2	18.2
SA	8.7	8.3	7.8
WA	8.9	9.7	10.5
Tas.	2.8	2.6	2.4
NT	0.9	1.1	1.4
ACT	1.6	1.8	1.9
Australia	100.0	100.0	100.0

The State and Territory distribution of the population of Australia is projected to change with New South Wales, Victoria, South Australia and Tasmania losing population and the remaining States and Territories gaining population share. The largest gain occurs in Queensland which increases its share by 2.1 per cent. The largest loss occurs in Victoria which decreased its share by 2 per cent.

The median age (the age where one half of the population is younger and the other half older) of the population is projected to increase in all States and Territories between 1984 and 2021. The greatest increase in median age occurs in the Australian Capital Territory (9.4 years) and the smallest increase occurs in New South Wales (6.6 years) Tasmania shows an increase of 9.2 years.

6.22 Median Age (years)

State and Territories	*1984*	*2001*	*2021*
NSW	31.1	35.0	37.7
Vic.	30.7	35.1	38.9
Qld	29.6	33.6	36.6
SA	31.4	36.2	39.3
WA	29.5	34.0	37.3
Tas.	29.8	34.9	39.0
NT	25.1	29.0	32.2
ACT	27.8	33.2	37.2
Australia	30.5	100.0	37.8



Aged Population Forecast, Tasmania, 2001

6.21 Estimated Resident Population (1984) and Projections (1991–2021) ('000)

State or Territory	*Actual 1984*	*1991*	*2001*	*2011*	*2021*
New South Wales	5 405.1	5 864.7	6 571.8	7 181.2	7 747.1
Victoria	4 075.9	4 395.7	4 879.1	5 257.3	5 584.9
Queensland	2 505.1	2 824.9	3 312.9	3 769.2	4 212.1
South Australia	1 353.0	1 457.5	1 601.7	1 711.0	1 810.4
Western Australia	1 382.6	1 574.5	1 874.2	2 155.0	2 423.8
Tasmania	437.3	467.4	506.3	534.6	557.1
Northern Territory	138.9	170.2	218.4	266.9	312.7
Aust. Capital Territory	252.6	286.5	345.4	399.2	446.8
Australia	15 543.6	17 041.6	19 309.7	21 274.5	23 095.7

6.5 TASMANIA'S MIGRANT POPULATION A 1981 Census Profile

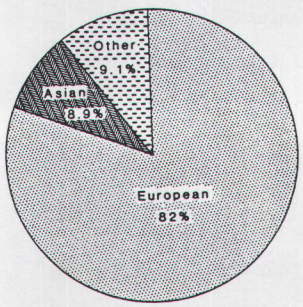
There are now more than three million people born overseas living in Australia, about 20 per cent of the population. In the four decades since 1945 4.2 million people have arrived from more than 120 countries helping to double the population. More than 400 000 have been refugees and displaced people — from Europe, Asia, the Middle East, Central and South America, and more recently, Africa.

The provision of assistance in the form of land grants or help with passage costs has been a feature of Australian immigration since the early days of colonisation. An estimated half of all Australia's settlers have received some form of help.

At June 1981 there were more than 42 000 overseas born people living in Tasmania, just under 10 per cent of the State's population.

6.5.1 Birthplace

The pattern of post-war immigration to Tasmania has differed significantly from that of Australia as a whole. While people have come from all continents, 80 per cent were either born in English speaking countries (64 per cent) or in Northern Europe (17 per cent). Fifteen per cent have come from Asia, Oceania or Africa.



Birthplace of Tasmania's Migrant Population, 1981

For Australia as a whole, less than half of all migrants have come from English speaking countries and only 14 per cent from Northern Europe.

6.5.2 Where They Live

People born overseas are more urbanised than the locally born population, with 84 per cent living in the Hobart, Launceston and Burnie–Devonport districts. This compares with 77 per cent of the total population who live in these areas. Nearly half live in greater Hobart compared with only 40 per cent of the total population.

6.5.3 Age

As most migrants are of working age on arrival in Australia, their age profile differs markedly from that of the total population. Only 21 per cent of people born overseas are less than 25 years of age whereas over 62 per cent of the total population are under 25.

6.23 Age of Overseas Born Population in Tasmania

Age	*Males*	*Females*	*Persons*
0–24	4 070	4 045	8 115
25–54	12 526	10 426	22 952
35–64	3 225	2 683	5 908
65+	2 646	3 020	5 666
Total (a)	22 466	20 169	42 635

(*a*) Individual figures have been randomly adjusted to avoid the release of confidential information.

6.5.4 Period of Residence

The changes in the pattern of Australia's imigration program is reflected in statistics focussing on the period of residence. Over half the Asian and Oceania born population have been in Australia less than 10 years while more than 65 per cent of the European born population have been in Australia for 22 years or more; the proportion of migrants born in the UK and Ireland has remained fairly constant during the post-war peroid. That is Asia and Oceania and, to a lesser extent, Africa and America are now providing a considerably larger proportion of Australia's immigrants than even just 10 years ago.

6.24 Period of Residence of Overseas born Population

Country of birth	*0–9*	*10–21*	*22–28*	*29+*
UK and Ireland	4 310	9 490	3 357	5 786
Europe	979	2 879	3 305	4 466
Asia	1 282	558	177	476
America (*a*)	569	388	50	114
Africa	470	376	52	109
Oceania (*b*)	1 562	807	119	421
Total	9 132	14 514	7 058	11 280

(*a*) Includes North and South America.
(*b*) Includes New Zealand.

6.5.5 Proficiency in Speaking English

Over half of Tasmania's migrant population use a language other than English in their home. Even long established Northern European groups such as the Dutch and Germans frequently use their native language.

Greeks, Italians and Yugoslavs in particular have strongly maintained their original language.

6.25 English Proficiency

Country of birth	Speaks English only	Speaks other languages and speaks English	
		Well	Not well or not at all
UK and Ireland	22 830	234	10
Europe	4 325	6 228	911
Asia	1 070	911	279
America (*a*)	982	108	5
Africa	827	109	2
Oceania (*b*)	2 680	160	4
Total	32 714	7 750	1 211

(*a*) Includes North and South America.
(*b*) Includes New Zealand.

6.26 Unemployment Rate, Tasmania (%)

Country of birth	Unemployed	
	Male	Female
UK and Ireland	5.9	7.2
Europe	5.5	7.2
Asia	8.2	10.7
America (*a*)	10.1	8.4
Africa	5.5	9.2
Oceania (*b*)	8.2	9.0
Total	6.1	7.6
Total population	7.2	8.4

(*a*) Includes North and South America.
(*b*) Includes New Zealand.

Only about 0.3 per cent of all migrants don't speak English at all; even among the non-British and Irish migrants only a relatively small number, 0.7 per cent, don't use English. Among these, females outnumber males by almost two to one while among the national groups it is Greeks, Poles and Asians who are the least proficient in English.

6.5.6 Employment and Occupation

Unemployment rates among migrants in Tasmania are mostly lower than for both males and females than for the population as a whole.

However among Asians, Americans and people from Oceania unemployment is higher.

Occupation patterns show considerable variation between migrant groups. Almost half the Asians, Americans and Africans, females as well as males, are employed in professional, technical or managerial occupations. Migrant males from the UK and Ireland, and Oceania are split, one third in each of the professional and trade groups with about another 12 per cent in sales or clerical occupations. Almost half the European males are tradesmen or process workers.

In the clerical and sales occupations, women outnumber men; especially women from the UK and Ireland, and Europe. Of the Europeans a high proportion are Greeks who are employed in the sales area while a high percentage of Dutch women are employed as clerks.

6.27 Occupations of Migrants

Country of birth	Professional, technical, managerial	Clerical and sales	Trade or process workers	Service, sport, recreation	Other	Total employed
Males						
UK and Ireland	2 896	1 034	2 508	638	960	8 036
Europe	1 159	503	2 410	323	694	5 086
Asia	337	94	86	65	103	685
America (*a*)	156	48	67	12	45	329
Africa	151	41	47	21	33	292
Oceania (*b*)	260	90	259	37	175	823
Females						
UK and Ireland	1 584	1 606	200	636	388	4 417
Europe	404	585	202	447	250	1 893
Asia	197	133	13	62	40	438
America (*a*)	100	56	3	21	24	205
Africa	98	43	8	17	12	175
Oceania (*b*)	140	147	28	73	60	447

(*a*) Includes North and South America.
(*b*) Includes New Zealand.

6.6 REFERENCES

ABS Publications Produced by the Canberra Office:

Census of Population and Housing, 30 June 1981: Persons and Dwellings in Local Government Areas and Urban Centres, Tasmania (2406.0), 1982.

Census of Population and Housing, 30 June 1981: Summary Characteristics of Persons and Dwellings, Tasmania (2440.0), 1982.

Australian Demographic Statistics Quarterly (3101.0).

Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0), annual.

Projections of the Population of Australia (3204.0), triennial.

Projections of the Population of the States and Territories of Australia (3214.0), triennial.

Births (3301.0), annual.

Deaths (3302.0), annual.

Causes of Death (3303.0), annual.

Perinatal Deaths (3304.0), annual.

Marriages (3306.0), annual.

Divorces (3307.0), annual.

Social Indicators (4101.0), biennial.

ABS Publications Produced by the Tasmanian Office:

Age Distribution of the Estimated Resident Population in Local Government Areas, Tasmania (3203.6).

Aged Persons in Tasmania, 1984

Census of Population and Housing 1981: Characteristics of Persons in Hobart Suburbs (2201.6).

Census of Population and Housing 1981: Characteristics of Persons in Launceston Suburbs (2202.6).

Census of Population and Housing 1981: Characteristics of the Population and Dwellings in Local Government Areas (2401.6).

Births, Tasmania (3303.6), annual.

Deaths, Tasmania (3304.6), annual.

Divorces, Tasmania (3302.6), annual.

Fertility Trends in Tasmania, 1984

Marriages, Tasmania (3305.6), annual.

Mortality Trends in Tasmania, 1960–1982, 1983

Social Report Tasmania, Hobart, 1985.

Other Publications:

Australian Life Tables 1975–77, Australian Government Actuary, Canberra.

Obstetric and Neonatal Report, Tasmania (produced annually by the State Committee of the Royal College of Obstetricians and Gynaecologists and the Department of Obstetrics and Gynaecology, University of Tasmania, Hobart.

Borrie, W.D. (Chairman, National Population Inquiry) *Population and Australia, A Demographic Analysis and Projection*, Vols one and two. Australian Government Publishing Service, Canberra, 1975.

Chapter 7

LABOUR AND THE WORKPLACE

		Page No.
7.1	**The Labour Force**	123
7.1.1	Participation in the Labour Force	123
7.1.2	Employment	124
7.1.3	Unemployment	126
7.2	**Employment and Training Schemes**	128
7.2.1	The Commonwealth Employment Service	128
7.2.2	Community Youth Support Scheme	129
7.2.3	Community Employment Program	129
7.2.4	Tasmanian Employment Program	130
7.2.5	Training and Apprenticeship	130
7.3	**The Working Environment**	132
7.3.1	Earnings	132
7.3.2	Wage Fixing	133
7.3.3	Trade Unions	134
7.3.4	Industrial Disputes	135
7.3.5	Industrial Accidents	135
7.4	**References**	136
	Appendix	137

Chapter 7

LABOUR AND THE WORKPLACE

Over the last two decades the Tasmanian labour force as well as the conditions under which people are either employed or not employed have undergone significant changes. Whereas in the early 1960s an unemployment rate of 3 per cent was considered unacceptably high, it is now at least 8 per cent. In response Governments, both Commonwealth and State have devised schemes to create additional jobs and training opportunities as well as to alleviate the financial hardship resulting from the loss in income.

Women now comprise a significantly greater proportion of the labour force than at any time since the Second World War. This has been a leading factor in moves against discrimination in employment and working conditions on the basis of sex.

Changes have also occurred in the work environment. Earnings have increased substantially although in many cases hours worked have decreased. The concept of a basic wage has been replaced by that of a total wage incorporating the idea of a minimum wage to be applied equally to males and females doing work of equal value.

Australia's conciliation and arbitration system established early this century, has resulted in a level of unionism unparalleled anywhere in the Western world. The system of periodic national wage cases that has ensued has reinforced the union as a corner stone of the Australian system of industrial relations. This has given workers' organisations wide ranging responsibilities and powers in maintaining and regulating working conditions. For example, legislation in Tasmania has given specific and extensive powers to safety representatives elected to monitor workplace conditions and practices.

7.1 THE LABOUR FORCE

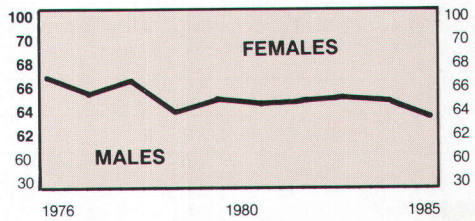
At August 1985 there were 194 400 people or 57.6 per cent of the State's working age civilian population either working or looking for work. In terms of the number of people, this was Tasmania's largest ever labour force. But as a proportion of the total civilian population it has declined over the last decade.

7.1 Tasmania's Labour Force

Year	*Number ('000)*	*Proportion of working age civilian population (%)*
August —		
1976	172.3	59.1
1978	176.7	58.4
1980	181.9	58.2
1982	184.3	57.6
1984	187.6	57.1
1985	194.0	57.6

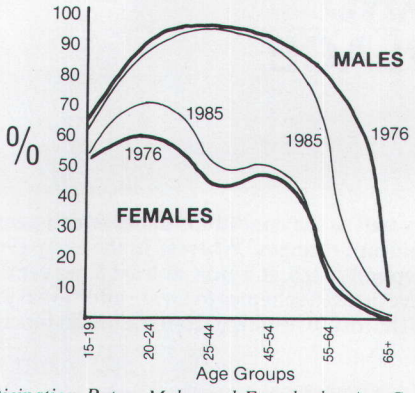
7.1.1 Participation in the Labour Force

The labour force comprised 123 300 males and 70 700 females at August 1985. Although the trend has not been dramatic, it is clear that the proportion of males making up the labour force has been falling steadily. While there were both more males as well as more females in the labour force in 1985 than at any time previously, the proportion of males is now at its lowest while the proportion of females is its highest ever.



Labour Force: % Males and Females

This is not only because the proportion of females in the population has been rising. It is also because the number of women in the labour force as a proportion of the female population has been increasing while that for males has fallen.



Participation Rates, Males and Females by Age Groups

The fall in the proportion of males in the labour force has occurred in all age groups but most noticeably in the 55–64 age group, reflecting the effect of early retirement schemes and retrenchments.

7.2 Labour Force Participation Rates, Tasmania Males (%)

	At August	
Age group	*1976*	*1985*
15–19	63.1	61.5
20–24	91.4	89.1
25–44	95.7	95.1
45–54	93.6	92.5
55–64	79.6	58.2
65+	11.4	7.4
Total	79.6	75.1

The expansion of the female labour force has occurred in the 20–54 age group with the most significant increase being among females aged between 20 and 44.

7.3 Labour Force Participation Rates, Tasmania Females (%)

	At August	
Age group	*1976*	*1985*
15–19	51.2	51.8
20–24	60.3	70.4
25–44	45.1	53.0
45–54	47.8	50.8
55–64	19.1	15.1
65+	2.1	1.0
Total	38.8	41.7

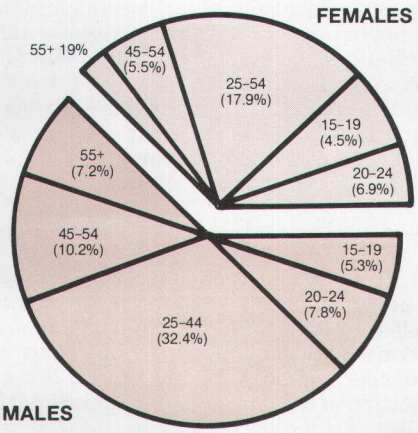
Since 1976 the female labour force has expanded by almost 13 800 — with the 25–44 age group accounting for 11 300. For males as well as females, the participation rates of the higher age groups have fallen. But whereas the male participation rates have fallen in all age groups, the participation rate among females of the lower age groups has increased.

7.1.2 Employment

After a fall in employment levels in the early eighties, by August 1985 the number of people working had risen to a record level with 177 300 people employed, 112 300 males and 64 900 females. While male employment has risen only marginally above the 1974 level the number of females employed has steadily increased. At August 1985 there were 11 800 more women working than in 1976 with the 20–44 age group accounting for almost all the increase. Among males on the other hand, employment has increased only among the 25–44 age group.

7.4 People Employed, Tasmania ('000)

Year	*Males*	*Females*	*Total*
August —			
1976	111.2	53.1	164.3
1977	112.2	56.0	168.7
1978	111.4	54.5	165.9
1979	111.9	61.0	172.9
1980	112.6	59.9	172.5
1981	111.2	60.0	171.2
1982	108.9	58.2	167.1
1983	107.3	52.6	164.9
1984	107.1	59.4	166.5
1985	112.3	64.9	177.2



Age and Sex Proportions of Employed Labour Force, August, 1985, Tasmania

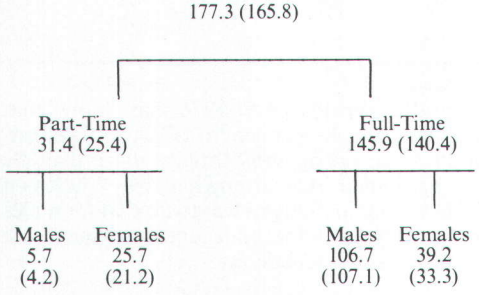
7.5 Employment Levels by Age and Sex, Tasmania ('000)

Year	15–19	20–24	25–44	45–54	55–64	65+	Total
			Males				
August —							
1976	10.2	14.6	49.7	20.6	14.4	1.7	111.2
1978	11.1	14.7	51.6	19.9	12.4	1.7	111.4
1980	10.3	15.6	53.7	19.2	12.2	1.7	112.6
1982	10.4	13.2	54.9	18.6	10.0	.8	108.9
1984	7.6	13.0	56.3	18.4	10.4	1.4	107.1
1985	9.4	13.8	57.4	19.0	11.3	1.4	112.3
			Females				
August —							
1976	8.4	9.3	21.7	9.8	3.5	0.4	53.1
1978	8.6	9.5	23.5	8.8	3.8	0.2	54.5
1980	9.3	11.7	26.5	8.5	3.4	.6	59.9
1982	7.7	9.8	27.7	9.2	3.5	.3	58.2
1984	7.3	10.0	30.2	8.7	2.5	.6	59.4
1985	7.9	12.3	31.8	9.7	3.0	.3	64.9

Part-time and Full-time Employment

A substantial number of people, mainly women, work part-time; almost 18 per cent of the employed labour force, an increase of three per cent on part-time employment in 1978. With comparatively few males working part-time, the increase has been substantially due to the 4 500 more women now working part-time. However, as a percentage of the total employed labour force, the number working part-time has fallen.

Employment, Tasmania, August 1985 (*a*) ('000)



(*a*) 1978 in brackets.

Industry Structure

Just over 52 per cent of the employed labour force in Tasmania work in one of three industries; manufacturing, wholesale and retail trade, or community services. This is almost identical to the employment pattern of a decade ago when the same three industries provided 51 per cent of the employment. However, in that period changes have occurred within industry groups, the most significant of which has been the comparatively large increase in the number of people now employed in the community services area. This industry is now the largest employer, surpassing manufacturing and wholesale and retail trade.

7.6 Employment Pattern of Industry, Tasmania

Industry	Persons employed ('000)				Change 1976–1985
	August 1976		August 1985		
	Number	Per cent	Number	Per cent	Per cent
Agriculture	11.9	7.1	12.9	7.3	+8.4
Forestry, logging, fishing and hunting	1.9	1.1	2.6	1.5	+36.8
Mining	4.3	2.5	3.3	1.9	–23.3
Manufacturing	31.7	18.8	24.8	14.0	–21.7
Construction	16.5	9.8	13.1	7.4	–20.6
Wholesale and retail trade	29.7	17.6	32.6	18.4	+9.8
Transport and storage	8.5	5.0	8.7	4.9	–0.1
Finance, property and business services	9.7	5.7	12.5	7.1	+28.8
Community services	25.3	15.0	36.0	20.3	+42.3
Recreation and personal services	12.9	7.6	11.7	6.6	–9.3
Other industry	16.4	9.7	19.2	10.8	+17.0
Total	168.8	100.0	177.3	100.0	+5.0

7.7 Male and Female Employment by Industry, Tasmania

Industry	Males		Females	
	August 1976	*August 1985*	*August 1976*	*August 1985*
Agriculture	9 348	9 297	3 575	3 618
Forestry, logging, fishing and hunting	2 052	2 252	91	355
Mining	4 485	2 942	345	363
Manufacturing	24 680	20 000	6 178	4 749
Construction	13 510	11 848	635	1 243
Wholesale and retail trade	18 674	18 889	11 391	13 703
Transport and storage	7 262	7 573	616	1 091
Finance, property and business services	4 224	6 560	4 352	5 901
Community services	9 666	13 713	13 818	22 306
Recreation and personal services	4 914	4 259	7 918	7 441
Other industry	12 366	15 007	4 147	4 166
Total	111 181	112 349	53 066	64 936

There is also nearly 30 per cent more people now employed in finance, business and property services than there were ten years ago; employment in the forestry, logging, fishing and hunting industry group has also increased significantly, albeit from a low base. On the other hand employment in manufacturing especially and also construction and mining, has fallen markedly, and all are industries that employ significantly more males than females.

Male employment is more dispersed than is female employment. Whereas 47 per cent of employed males work in one of three industry groups, (manufacturing, wholesale and retail trade, and community services), 56 per cent of the employed female labour force is concentrated in just two industry groups, (community services, and wholesale and retail trade). In the ten years since 1976, male employment has become slightly more dispersed while female employment has become increasingly concentrated in these two groups. In each of these industries employment is increasing and in both, female employment has increased more than male employment. This is especially the case with community services where the number of females employed now is more than double the number of males employed.

7.1.3 Unemployment

The upsurge in unemployment that occurred in the mid-seventies was merely a foretaste of worse to follow. In the next few years the unemployment rate more than doubled, from 4.7 per cent in 1976 to a peak of 12.0 per cent, 22 500 people, in January 1983. By August 1985 it had fallen to 8.6 per cent with 16 700 people looking for work.

While the unemployment rates have climbed for both males and females, the rate for males

7.8 Unemployment, Tasmania ('000)

Year	*Males*	*Females*	*Total*	*%*
August —				
1976	4.2	3.9	8.1	4.7
1978	6.2	4.7	10.9	6.2
1980	5.6	3.8	9.4	5.2
1982	10.4	6.8	17.3	9.4
1984	13.8	7.3	21.1	11.2
1985	11.0	5.8	16.7	8.6

over the period since 1976 has more than doubled from 3.6 per cent in 1976 to 8.9 per cent in 1985 increasing substantially more than the unemployment rate among females. Whereas in 1976 the rate for females was twice that for males, in January 1984 the male unemployment rate moved past the female rate.

7.9 Unemployment Rates (%)

Year	*Males*	*Females*
August —		
1976	3.6	6.8
1978	5.3	7.9
1982	8.7	10.5
1984	11.4	10.9
1985	8.9	8.1

Youth unemployment

Unemployment has become particularly severe among young people; almost a quarter of all people looking for a job are aged between 15 and 19 years and a further 25 per cent are aged between 20 and 24. While total unemployment has doubled since 1976, the rate among the 15–19 age group over the same period has increased from 18 per cent in 1976 to reach 34 per cent in

7.10 Age of People Unemployed, Tasmania, August 1985 ('000)

Year	Males	Females	Persons
August —			
15–19	2.4	1.7	4.1
20–24	3.1	1.0	4.1
25–44	4.7	2.2	6.9
45–64	0.8	0.8	1.6
Total	11.0	5.8	16.7

February 1984 before dropping back to 20 per cent in 1985.

7.11 Unemployment Rates by Age (%)

Year	15–19	20–24	25–44	Total
		Males		
August —				
1976	18.0	5.0	2.0	3.6
1978	12.6	10.2	8.0	5.3
1980	15.6	7.2	2.7	4.7
1982	19.5	20.3	6.0	8.7
1984	31.5	19.3	7.7	11.4
1985	20.4	18.1	7.6	8.9
		Females		
August —				
1976	18.5	6.5	6.7	6.8
1978	18.5	10.5	5.5	7.9
1980	17.4	*	*	6.0
1982	31.5	11.1	5.9	10.5
1984	22.0	14.5	9.0	10.9
1985	18.1	7.7	6.5	8.1

'Hidden Unemployment'

As levels of unemployment rose the term 'hidden unemployment' has been widely used to describe those who, although failing to satisfy the statistical criteria as unemployed, nevertheless do have some commitment to gain work. The term 'hidden unemployment' is used to refer to people who, while neither employed nor actively seeking work when surveyed, would seek work if the demand for labour should improve. However, precise measurement is difficult. People wanting to work include a range of potential workers, from genuine discouraged job seekers to people with family commitments whose interest in finding employment may be unlikely to be realised.

At March 1985 there were an estimated 19 000 people who, although neither working nor officially 'unemployed', nevertheless indicated this kind of 'marginal 'attachment' to the labour force. Of these, almost two thirds had personal or family reasons for not actively looking for work. Just under 20 per cent were people who believed they would not be able to find a job.

Labour Force Movement, August 1984–August 1985

Participation Rate: Between August 1984 and August 1985 the participation rate in the labour force remained fairly static at about 75 per cent for males and 40 per cent for females. This represents an increase of 2 400 males and 4 000 females. Over the same period the civilian population increased by 5 400.

Employment: Males and females shared an increase in employment of 10 700 over this period, 5 200 and 5 500 respectively. Although similar in terms of actual numbers, the rise in male employment represented a 4.9 per cent increase over the same period, whereas the females showed a 9.3 per cent increase.

Unemployment: For both males and females there was a drop of around 20 per cent in the number unemployed; from a total of 21 100 to 16 700 in August 1985. The unemployment rate for the period began at 11.2 per cent in August 1984, and dropped to 8.4 per cent in Apri 11985. Since April the unemployment rate has marginally increased.

7.12 Persons Not in the Labour Force but with Marginal Attachment to the Labour Force, Tasmania, March 1985 ('000)

Marginally attached to the labour force	
Main Reason for not actively looking for work —	
Personal Reasons —	
Own health, disability or pregnancy	1.4
Attending an educational institution	1.9
Had no need to work	1.1
Other reasons	2.1
Total	6.5
Family Reasons —	
Unable to find suitable child care	1.8
Children too young, preferred to look after children	3.0
Other reasons	1.3
Total	6.1
Discouraged job seekers —	
No jobs in locality or line of work	1.7
Other reasons	1.8
Total	3.5
Other reasons (*e*)	2.4
Total main reason for not actively looking for work	18.5
Were actively looking for work but not available to start in the survey week	*
Total with marginal attachment to the labour force	19.0

7.2 EMPLOYMENT AND TRAINING SCHEMES

With unemployment at a level that only a few years ago was regarded as potentially destructive of the nation, governments have had to become increasingly involved in employment programs, job placement, skills training, structural adjustment, and labour market planning. By 1984–85 more than $8 000 million were being spent by government on measures dealing with unemployment.

The first of a series of new employment initiatives in the 1970s was the short-lived Structural Adjustment Assistance program. It was introduced in response to the adverse effects of the 25 per cent cut in tariffs in July 1973. In October 1974 the National Employment and Training System was introduced. It provided financial assistance to people undertaking training either through on-the-job training or through formal courses.

Shortages of skilled workers and apprenticeship opportunities in 1973 led to the introduction of the National Apprenticeship Assistance Scheme. This was replaced by the Commonwealth Rebate for Apprentice Full-time Training in 1977.

The largest program of the 1970s was the Regional Employment Development Scheme. Introduced in 1974 as a major job creation measure, it aimed at providing employment opportunities through grants to local bodies for specific labour intensive projects. By 1977 the scheme had been phased out.

In its place emerged a range of programs specifically targeted to young people, the Special Youth Employment Training Program, the Community Youth Support Scheme, the Education Program for Unemployed Youth and the School to Work Transition Program. These programs marked a shift towards training and young people.

A further change of direction occurred in the 1980s with several programs aimed at unemployed adults. The Skills in Demand program is directed at overcoming current skill shortages and the Adult Wage Subsidy Scheme is a program targeted specifically to long term unemployed adults. The Labour Adjustment Training Arrangements were initially developed for the retraining of redundant workers from the steel industry and then widened to include others affected by large scale retrenchments.

At the beginning of 1982 there was a return to job creation programs, beginning with the Wage Pause Program and continued with the Community Employment Program.

7.2.1 The Commonwealth Employment Service

Australia's public employment service, the Commonwealth Employment Service (CES), has its origins in the provisions of the *Re-establishment and Employment Act* 1945.

Since its creation, the CES has been the major delivery agent for the Commonwealth Department responsible for labour matters, the Department of Employment and Industrial Relations. The CES is required, under the 1945 Act and the more recent *Commonwealth Employment Service Act* 1978, to provide an equitable employment service to job seekers and employers, to deliver employment and training programs and to advise the Government on labour economic matters.

In a dynamic labour market, against a background of changing community expectations and government requirements, and new developments in management techniques and technology, the CES has had to be adaptable, responsive and flexible.

CES services to job seekers extend from direct placement in employment of those persons who can immediately perform the job, to the provision of various forms of assistance to those who are experiencing difficulty gaining employment.

The services are provided through a decentralised network of offices throughout Australia. In all there are 261 Job Centres of the Commonwealth Employment Service plus 61 part-time Branch Offices and 146 Agents.

In every Job Centre a comprehensive range of current job vacancies is displayed. From this range job seekers can select the positions most suited to their capacities. This self service facility enables speedy referral of job seekers to employers for interview and placement.

The CES provides a range of occupational information for all categories of job seekers in Work Information Centres that are attached to 168 of its Job Centres. Additionally, Career Reference Centres located in all State capitals and some larger provincial centres, provide job seekers with access to a more comprehensive library of audiotapes, videotapes and advice on the job search process. These Centres are special

7.13 Job Seekers and Job Vacancies Registered with CES, Tasmania, 1984–85

Registrations of job seekers	52 038
Vacancies notified to the CES	24 259
Vacancies filled	20 111
Unemployed persons registered at 30 June 1985	24 444

Source: Commonwealth Employment Service, *Report of the National Director 1984–1985.*

units of the CES which do not engage in job placement activities.

In addition Professional Employment Services Offices are provided in the major centres of population and business, which respond to the needs of professionally qualified job seekers.

In its attempts to increase employment prospects of job seekers, the CES provides counselling and support services for groups with particular difficulties and needs. These include youth, people with disabilities, Aboriginals and migrants.

When young job seekers register with the CES, they receive advice on employment and training opportunities. For those experiencing difficulty in finding employment or those who have been unemployed for some time, the CES makes extensive use of a range of Departmental labour force programs such as the Special Youth Employment Training Programs. The CES also maintains close contact with local and regional Technical and Further Education (TAFE) networks and provides support to Community Youth Support Scheme (CYSS) projects and other youth-related community programs to help young job seekers receive advice, training and support appropriate to their entry into the work force.

7.2.2 Community Youth Support Scheme

The Community Youth Support Scheme (CYSS) is a Commonwealth Government scheme which was introduced in October 1976 as a means of encouraging local community groups to become involved in assisting unemployed young people. The scheme recognises that young people experiencing periods of unemployment at a time when there is a shortage of jobs may need support or assistance.

The form in which this support may be offered varies according to the particular needs of the young people concerned. Organisations and groups within the community are encouraged to seek funding to run programs and services for young unemployed people. The scheme is designed to complement other Government initiatives previously introduced to increase employment and training opportunities for young people. Accordingly, CYSS programs must contain some orientation towards employment. This need only be in fairly general terms. It is not intended that CYSS should provide formal skills training as this may be dealt with under labour force programs.

CYSS is not a job creation program, nor is it a means of getting jobs done for organisations which need free labour. CYSS may help young people in several ways:

- by better equipping them to get a job. Sessions on how to handle job interviews, how to go about applying for a job and even where to look for jobs will give a young person confidence and a better chance of finding employment.
- by giving assistance with social, financial, educational, health and general welfare problems that could be making it more difficult for them to find employment; and
- by providing a wide range of activities to make the period of unemployment more interesting and more creative. Because of the shortage of job vacancies some young people may face long periods of unemployment. They may become bored, frustrated and disillusioned. CYSS funds may be used to provide outdoor activity, art and craft workshops, sessions on basic car maintenance, cookery, etc.

Any young unemployed person under 25 years of age, over the legal school leaving age (or with special exemption) and not in full-time education, is eligible to participate in CYSS projects. This includes people receiving a pension or benefit who will eventually be capable of work. There are 22 CYSS groups throughout the State.

7.2.3 Community Employment Program

The Community Employment Program (CEP) is a major initiative of the Commonwealth Government to create employment opportunities.

The Program operates under the *Community Employment Act* of 1983 and involves the Commonwealth and State Governments in a constructive partnership with local government authorities and community organisations. It commenced on 1 August 1983 and is to be funded for a period of three years.

The objective of CEP is to create additional employment opportunities for unemployed persons through the funding of labour intensive projects of social and economic benefit to the community.

7.14 CEP Approvals, Tasmania, 1984–85

Value of approved projects ($m)	14.3
Number of projects	384
Number of jobs	1 284

Source: Commonwealth Employment Service, *Report of the National Director 1984–1985.*

CEP is directed at those unemployed persons who are particularly disadvantaged in the labour market and who are consequently least likely to benefit from improved economic activity; particularly the longer term unemployed and those suffering from social and other disadvantages.

Equal access is to be provided for men and women to employment opportunities. In some instances, this may necessitate special measures to ensure that women receive an equal share of

the jobs created (funds earmarked for roads expenditure would be excluded).

Positions under CEP should provide persons with work experience and/or training which will assist participants in gaining on-going employment.

Projects should lead to the provision of facilities and services of public and community benefit.

Priority consideration will be given to projects in areas of high unemployment.

The Consultative Committee

All applications for CEP grants are considered on their merits by a Consultative Committee in the State. The Committees comprise Commonwealth and State Government officials and representative(s) of local government, non-government organisations and interest groups. The Committees have the functions of encouraging and facilitating the development of worthwhile projects in the State and ensuring that the targets and objectives of the Program are met.

The Secretariat

Each Consultative Committee is serviced by a joint Commonwealth and State Secretariat. The Secretariat is responsible for receiving applications for CEP grants and ensuring that each application meets the guidelines and has provided sufficient information for consideration by the Consultative Committee. It also assists the Committee in its developmental role by co-ordinating the provision of relevant information on individual projects and characteristics of the labour market in their respective States.

7.2.4 Tasmanian Employment Program

The State budget for 1984–85 introduced a new scheme to help create additional employment positions. The scheme provided a grant of $5 000 spread over three equal instalments, to employers for every additional employee engaged and retained for a period of at least 18 months, who had been registered with the Commonwealth Employment Service for three months.

Expecting to create 900 jobs, $1.5 million was initially allocated. In providing the grant, the Government sought to create a significant number of new long-term jobs for Tasmanians of all ages. By the end of August 1985, over 1 100 applications had been approved of which some 700 were for young people aged between 15 and 19. In reporting success for its first year of operation, the Premier announced the allocation of a further $3.4 million to create another 900 jobs.

7.2.5 Training and Apprenticeship

The Commonwealth Department of Employment and Industrial Relations is charged with the role of developing and administering employment and training schemes to give people the skills and experience they need to obtain and keep employment.

Youth Employment and Training Programs

Participation and Equity Program (PEP): The Department is closely involved with the State and Commonwealth Education Departments in the administration of this scheme which provides courses at Technical and Further Education (TAFE) Colleges for unemployed people aged 15 to 24 years who need further education or skills training before they can obtain employment. The courses are vocationally oriented and range from pre-apprenticeship courses to basic literacy, numeracy and life skills training. Eligible trainees attending these courses are paid special allowances.

Community Youth Special Projects (CYSP): CYSP provides assistance to community organisations which develop full-time structured employment-related training opportunities, combining vocational courses, life skills, personal development, remedial education and work experience for unemployed young people most disadvantaged in the labour market.

Financial assistance is available to community organisations to meet establishment and operational costs of individual projects. Eligible participants may receive an allowance equivalent to their unemployment benefit entitlement plus $6 per week.

Experimental Training Projects: Innovative short-term, small-scale or specialised post-school training arrangements may be funded as experimental training projects to meet identified training and employment-related needs of unemployed young people.

Financial assistance is available to appropriate training institutions, employer and industry associations and established community groups to develop and conduct experimental activities which meet local labour market needs.

Projects aim to benefit 15 to 24 year olds who have been unemployed and away from full-time education for at least four of the last 12 months. Preference is given to providing assistance to those who are most disadvantaged such as young women, migrants, the long-term unemployed and young people from rural/isolated areas.

Trainees are eligible for an allowance and related benefits.

Assistance for Work Experience

The Special Youth Employment Training Program (SYETP): The CES pays employers a subsidy to employ and train young people aged 15 to 24 who have been unemployed for at least four months. Higher subsidies are paid for young

people aged 18 to 24 who have been unemployed for eight months or more.

Adult Wage Subsidy Scheme was introduced in March 1983 with the objective of providing a period of stable employment for unemployed adults. Employers are paid a wage subsidy to provide 34 weeks continuous employment to persons over 25 years who have been unemployed for at least eight of the previous 12 months. Higher subsidies are paid for a 12 month period to employers who employ adults over 45 years who have been unemployed for at least 12 months.

Special Training

Disabled Persons: Under these programs disabled people may receive allowances to attend formal courses. Employers may receive subsidies for offering disabled persons on-the-job training. The subsidies are higher than those available to other groups because of the particular difficulties faced by disabled persons.

Aboriginals: A national employment strategy has been developed to provide training and employment for Aboriginals. As well as training in the public sector, private employers are paid subsidies to employ Aboriginals who receive on-the-job training.

Special Needs Job Seekers: Persons assessed as having difficulty in finding or keeping employment because of social, cultural or other personal factors may receive assistance in the form of subsidised on-the-job training for a period twice that normally provided for a given occupation.

Skills Training

General Training Assistance: Assistance for individuals is provided by way of training allowances while undertaking formal courses and subsidies to employers to provide on-the-job training.

Skills in demand: Assistance is available under this program:

- to provide assistance to industry to establish new or improved training arrangements, particularly those of a nationally consistent nature;
- to provide assistance to industry to overcome skill shortages; and
- to assist unemployed persons with training to enable them to obtain stable employment.

Funding is provided where there is a current or anticipated industry shortage in a particular locality and/or the need established for a new training arrangement where none previously existed.

In the selection of trainees:

- there should be joint industry/Government development of selection criteria;
- the Commonwealth Employment Service (CES) will ascertain whether there are un employed people who meet the selection criteria;
- the selection panel for trainees will comprise industry representatives and Department of Employment and Industrial Relations.

Industry Training Services: This program is designed to aid and stimulate the systematic training programs through all sectors of industry and commerce. The program funds the operation of the National Training Council and the Industry Training Committees. The aim is to use training to promote efficiency, productivity and safety as well as industry's capacity to cope with new equipment, new techniques and changes in processing and market requirements.

Industry Training Committees are established in Tasmania in the following industries: building and construction, dairy, fishing, local government, printing, retail food, motor, timber, tourism, rural, textile, clothing and footwear.

Trade Training

The Commonwealth encourages employers to indenture and train apprentices. The Commonwealth Rebate for Apprentice Full-Time Training (CRAFT) provides employers with an incentive to increase the number of apprentices they employ and to improve the quality of training. Under the CRAFT scheme tax exempt rebates are paid to employers for each day an apprentice is released from work to undertake formal training. An allowance is payable to some apprentices who have to live away from home during their apprenticeship.

Special Apprentice Training Schemes: In addition to CRAFT, special arrangements under a variety of schemes can be made to encourage improvement in the quantity and quality of apprentice training.

Apprenticeships

Apprentices are trained at work and at technical classes, and supervisors report on the effectiveness of the training; supervisors also give on-the-spot advice to employers and apprentices where their mutual obligations are concerned and refer matters that cannot be settled in this way to the Apprenticeship Commission for decision.

7.14 Number of Apprentices and Apprenticeships, Tasmania, 1984–85

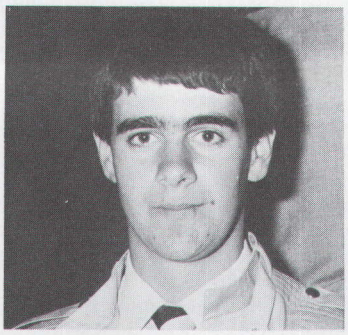
Number at 30 June —	
Apprentices employed	3 152
Apprentices on probation	360
Total	3 512
During year —	
New apprenticeships registered	1 116
Apprenticeships completed	1 046

An apprenticeship may not be commenced without prior application to the Commission which determines the suitability of employers for training apprentices and the educational qualifications required for entry to a particular trade.

The apprentice serves a three month probationary period before a contract (indenture) is made and formally signed by the employer, parent/guardian, and apprentice, prior to being registered with the Commission. The Commission determines disputes arising between the indentured parties' rights and duties; no apprenticeship may be terminated, suspended or assigned other than by its authority. When an apprenticeship has been completed, the employer and the Commission certify the original indenture to this effect. Where apprentices are required to undertake technical training, such instruction is mandatory. Apprentices who attend technical classes during working hours do so without loss of pay. (Country apprentices in remote areas attend Block Release Training, usually three fortnightly training periods each year.) The progress of apprentices at technical colleges is reported to the employer, parent/guardian, and the Commission where unsatisfactory reports are investigated. An annual training progress and attendance report is also required to be submitted to the Commission by the employer.

Apprentice of the Year

Tasmania's apprentice of the year is Peter Killick, 18, of Ulverstone, a fourth-year apprentice carpenter and joiner.



Two other apprentices won medals of commendation. They were Darren Scott, an employee in the sheetmetal trade in Devonport, and Steven Edmunds, a boilermaking/welding apprentice from Launceston.

Apprentices are encouraged by proficiency allowances for annual examinations passed successfully in the allotted times, by certificates of proficiency for apprentices successfully completing the mandatory trade course of technical instruction, and by the award of bursaries. In some cases the apprenticeship term can be reduced by one year where the qualifying trade course is completed in the allotted time.

The Commission offers an award of $250 and a Bronze Medallion to the outstanding apprentice in each of eleven trade groups. The 'Apprentice of the Year' who qualifies for an award of $600 is selected from the winners. Should there not be an outstanding apprentice in any particular trade group, the prize money allotted for that trade group may be awarded to those apprentices who receive Commendations.

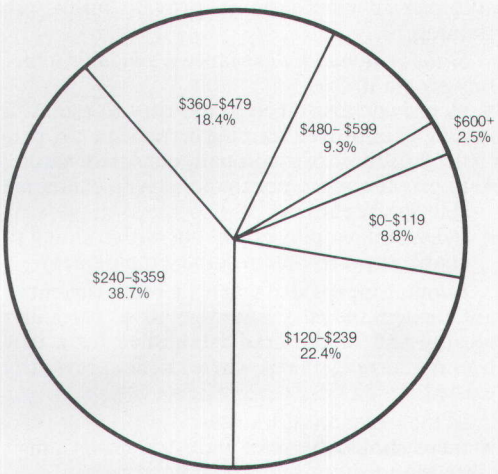
7.3 THE WORKING ENVIRONMENT

7.3.1 Earnings

Average earnings in Australia are highest in Victoria and New South Wales; Queensland has the lowest. Average earnings for Tasmanians are consistently in about the middle of all the States, $20 below the leading States. At November 1985,

7.15 Average Weekly Earnings of All Employees, Australian States, November 1984 and 1985 ($)

State/Territory	*November*		*Percentage change*
	1984	*1985*	
New South Wales	346.40	363.60	+5.0
Victoria	339.70	365.50	+7.6
Queensland	320.60	329.90	+2.9
South Australia	306.40	333.40	+8.8
Western Australia	322.60	347.40	+7.7
Tasmania	316.20	342.30	+8.3
Northern Territory	386.60	404.90	+4.7
Australian Capital Territory	382.40	402.30	+5.2



Distribution of weekly earnings, all employees, Tasmania, August 1985.

the average weekly total earnings were $342.30, a rise of 8.3 per cent over the level of the previous November. Within this figure is male average earnings at $407.20 and female earnings of $248.40. Over the four years from November 1981 the average total earnings of all employed Tasmanians increased by 28 per cent; earnings by males increased by 21 per cent while earnings by females increased by just under 32 per cent.

7.3.2 Wage Fixing

In Australia two sets of authorities regulate wages and salaries. The Conciliation and Arbitration Commission with federal jurisdiction, and various State tribunals, in Tasmania the Tasmanian Industrial Commission. In Tasmania approximately 51 000 employees are covered by federal awards and about 74 000 by State awards.

National Awards

Under the Australian Constitution, the Commonwealth Government's power to legislation in relation to wages is limited to the prevention and settlement by conciliation and arbitration of industrial disputes extending beyond the limits of any one State. This power enabled the establishment of the Commonwealth Court of Conciliation and Arbitration in 1904, since named the Australian Conciliation and Arbitration Commission. The court was empowered to make orders and awards altering what was the basic wage for the purpose of settling industrial disputes which extended beyond any State.

In 1907 Mr Justice Higgins, President of the Court, made the first definition and determination of the basic wage in the 'Harvester Judgment' when he declared a basic wage rate of $4.20 for Melbourne. By 1953, which marked the cessation of automatic quarterly adjustments, the basic wage had risen to $23.50. In 1967 the basic wage and the payment of margins were replaced by a 'total wage' incorporating a minimum concept. Provision remained for the re-assessment of work value for individual occupations. The minimum total wage was set at $38.15 in Hobart.

In April 1975, the Commission adopted the principle of wage indexaton based on quarterly movements in the Consumer Price Index. After a review of the principles of wage fixation in 1981, this system of wage indexation based on indexation was abandoned. The Full Bench stated that the viability of the system depended on the voluntary co-operation of all participants in industrial relations including those not directly represented at National Wage Hearings and concluded that events since April 1981 had shown clearly that the commitment of the participants to the system is not strong enough to sustain the requirements for its continued operation.

In September 1983 the Arbitration Commission met to consider an application by the ACTU for a 4.3 per cent increase in wages to compensate for CPI increases in the March and June quarters. The Full Bench granted the increase subject to the unions giving firm public undertakings that they will abide by the principles of wage indexation and pursue no extra claims. The decision was to be followed by non-automatic six monthly adjustments to wages for movements in the CPI during the previous two quarters.

7.16 Increases in Award Total Wages: National Wage Decisions

	Date Operative	*Per cent increase*
1978 —	7 June	1.3
	12 December	4.0
1979 —	27 June	3.2
1980 —	4 January	4.5
	14 July	4.2
1981 —	9 January	3.7
	7 May	3.6
1983 —	6 October	4.3
1984 —	6 April	4.1
1985 —	18 April	2.6
	14 November	3.8

The Commission may be constituted by a commissioner, a presidential member or a Full Bench of no fewer than three members of the Commission, including at least two presidential members.

The members of the Commission are arranged in panels which, as directed by the president, deal with disputes arising or likely to arise in a specific industry or group of industries. Each panel comprises at least one deputy president who organises and allocates the work of the members.

The functions of the Commission are in general, exercised by individual members of the Commission except that appeals from awards or orders of members of the Commission sitting alone and certain matters specified by the Act may be dealt with only by a Full Bench. The latter include claims relating to standard hours of work, general national wage claims, minimum wages for adults without regard to the work performed or industry concerned, annual leave with pay and long service leave with pay.

Tasmanian Awards

With the proclamation of the *Industrial Relations Act* 1984 on 1 January 1985, the Tasmanian Industrial Commission was created. It replaced the system of Industrial Boards that had existed since 1975 and also took over the

industrial functions of the Public Service Board and the arbitration functions of the Tasmanian Public Service Arbitrator.

There are five Commissioners, including the President and the Deputy President. They are empowered to make and amend awards relating to industrial matters affecting permanent, temporary, full-time, part-time, casual and piecework. To a limited degree they are also empowered to make and amend awards covering contract employees employed in private industry, in the State Service, or in any State Authority outside the State Service, such as the Police and the HEC to the extent those private and public employers are not bound by Federal Awards.

The Commission can hear and determine, without appeal, industrial disputes in any area, provided the subject of the dispute is an industrial matter and is notified to the Commission by an employer, or any registered employee organisation. It can compel persons to attend compulsory conferences convened by the President, for the purposes of settling an industrial dispute.

With the President's approval, any member of the Commission can conduct private arbitrations between parties who agree to accept the presiding Member's decision as final.

A Member of the Commission may certify an industrial agreement which, when approved by him, has the force of an award and stands in place of an existing award covering the same subject matter.

The President of the Commission also has certain additional statutory powers including the interpretation of awards and the making of declarations for the purpose of authorising 'craft' as distinct from 'industrial' awards. The President convenes Full Benches consisting of three members including where practical, himself or the Deputy President.

Full Benches hear and determine certain specified matters including those affecting hours of work, minimum wage, quantum of or payment of wages or allowances during annual leave and rates of wages generally. Full Benches also determine appeals.

COMMISSION MEMBERS	
President	Mr L A Koerbin
Deputy President	Mr A Robinson
Commissioners	Mr R K Gozzi
	Mr J G King
	Mr R J Watling
Registrar	Mr Q H James

The Federal award of June 1967 was followed by a test case argued before the Chairman of the State Industrial Boards. The employers asked for adoption of the total wage concept. The unions opposed this and argued for a $7.30 increase in the basic wage; if a lesser amount was determined, then a *minimum total wage* of $40.70 should nevertheless be fixed.

The decision in the case was that both male and female rates should be increased by $1; the increase, however, should be regarded as raising the basic wage which would be retained for the present in State determinations. The State Industrial Boards have since retained the basic wage and margins concepts in awards handed down following subsequent national wage case determinations of the Federal Conciliation and Arbitration Commission.

7.17 Minimum Wages, Adult Males: Federal and State Awards ($)

Date operative (a)	*Federal awards*	*Tasmanian awards*
27 June 1979	124.60	125.80
4 January 1980	130.20	131.50
14 July 1980	135.70	137.00
9 January 1981	140.70	142.10
7 May 1981	145.80	147.20
1 November 1982	145.80	168.00
6 October 1983	152.10	175.20
6 April 1984	158.30	182.40
18 April 1985	162.40	187.10
14 November 1985	168.60	194.20

(*a*) Rates operative from the first pay-period commencing on or after the date shown.

7.3.3 Trade Unions

Tasmania has the highest rate of trade union membership of any Australian State. At the end of June 1985, 63 per cent of Tasmanian employees were members of a trade union; the rate for females was 53 per cent and for males it was 69 per cent. The Northern Territory had the lowest rate; 41 per cent of males, 33 of females giving 38 per cent of all employees.

7.18 Proportion of Employees Belonging to a Trade Union, by State, December, (%)

State/Territory	*1979*	*1985*
New South Wales	57	60
Victoria	54	57
Queensland	53	54
South Australia	55	57
Western Australia	49	48
Tasmania	61	63
Northern Territory	42	38
Australian Capital Territory	58	57
Australia	56	57

Over the past seven years, the overall rate of trade union membership in Australia has been quite stable with a small rise in all States except Western Australia and South Australia; the rate in the Northern Territory and the Australian Capital Territory has also fallen. The greatest change has occurred in Western Australia with comparatively large falls in both the male and, especially, the female rates of trade union membership. In Tasmania both rates have risen marginally. In all States, and Territories, the actual number of employees in trade unions has increased.

7.19 Number of Trade Unions and Members, Tasmania

	1979	*1985*
Trade Unions	121	130
Members —		
Males	62 100	62 300
Females	26 100	29 800
Total	88 200	93 900

7.3.4 Industrial Disputes

During 1985, a total of 20 700 working days were lost in Tasmania as a result of industrial disputes. This was the lowest since 1972 when 19 200 working days were lost, and was a fall of 59 per cent compared with 1984.

However in proportion to the employed labour force, the number of days lost in Tasmania is relatively high in comparison to the other States, third highest.

7.20 Working Days Lost in Industrial Disputes, Tasmania

Year	*Working days lost*
1980	91 500
1981	64 300
1982	61 500
1983	67 800
1984	50 500
1985	20 700

7.21 Working Days Lost per Thousand Employees, by State

State	*1984*	*1985*
New South Wales	275	307
Victoria	151	154
Queensland	242	397
South Australia	49	54
Western Australia	550	209
Tasmania	544	218
Australia	246	242

7.3.5 Industrial Accidents

In the twelve months to the end of June 1985, ten fatal industrial accidents were recorded in Tasmania. Five occurred in primary industry including three in the forestry sector. In addition, a further 79 accidents which resulted in some form of permanent disability were reported. (See Appendix, Note 7.14, for an explanation of reporting and collection criteria.)

During the year, a total of 9 795 new compensation claims for industrial accidents were

7.22 Industrial Accidents by Industry Group, Tasmania, 1984–85

Industry group	*Number of accidents by extent of disability*		*Death*	*Total number of accidents*
	Temporary	*Permanent*		
Agriculture, forestry, fishing and hunting	881	7	5	893
Mining	834	5	—	839
Manufacturing	2 757	34	1	2 792
Electricity, gas and water	579	—	—	579
Construction	773	8	2	783
Wholesale and retail trade	1 178	5	—	1 183
Transport, storage and communication	179	1	1	181
Finance, property and business services	118	2	—	120
Public administration and defence	482	2	—	484
Community services	1 203	10	—	1 213
Recreation, personal and other services	399	3	—	402
All industries	9 706	79	10	9 795

lodged under the *Workers Compensation Act* 1927; 8 231 involved males and 1 564 involved females. This was the highest total since 1980–81 when 10 308 were recorded. In that year there were 11 deaths and 116 accidents resulting in permanent disability.

7.23 Industrial Accidents, Tasmania

Year	*Deaths*	*Total number of accidents*
1979–80	8	9 860
1980–81	11	10 308
1981–82	11	9 779
1982–83	11	9 004
1983–84	9	8 788
1984–85	10	9 795

Manufacturing accounted for just over 28 per cent of the accidents. The next highest groups were community services and wholesale and retail trade each with 12 per cent.

For the year, a total of 198 275 days were lost as a result of leave taken with an average of 20 days per accident. The highest average number of days leave taken for accidents was in the manufacture of transport equipment group while the lowest average time off was in the manufacture of fabricated metal products.

Compensation paid in respect of all fatal accidents was $395 073. For non-fatal accident claims, a total of $16 million was paid, with an average of $1 676 per claim.

Accidents reported include industrial diseases. Tenosynovitis has become the most frequent, comprising over 70 per cent of the 228 cases of disease recorded. However, the most common types of accidents involved collision with an object and over-exertion or physical stress movement. These two categories comprised almost 56 per cent of all accidents.

7.4 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Employment, Earnings and Other labour Related Statistics, Tasmania (6103.6), annual.

Industrial Accident Statistics, Tasmania (6301.6), annual.

Job Search Experience of Unemployed Persons, Tasmania (6222.6), annual.

Labour Force Statistics, Tasmania (6201.6), annual.

Persons Not in the Labour Force, Tasmania (6220.6), half-yearly.

ABS Publications Produced by the Canberra Office:

Average Weekly Earnings, Australia (6302.0), quarterly.

Award Rates of Pay Indexes, Australia (6312.0), monthly.

Distribution and Composition of Employee Earnings and Hours, Australia (6306.0), two-yearly.

Earnings and Hours of Employees, Distribution and Composition, Australia (6306.0), two-yearly.

Employed Wage and Salary Earners, Australia (6248.0), quarterly.

Incidence of Industrial Awards, Determinations and Collective Agreements, Australia, May 1983 (6315.0).

Industrial Disputes, Australia (6321.0), annual.

Labour Statistics, Australia (6101.0), annual.

Multiple Jobholding, Australia, August 1985 (6216.0).

Persons Not in the Labour Force, Australia (6220.0) two-yearly.

The Labour Force, Australia (6203.0), monthly.

Trade Union Statistics, Australia (6323.0), annual.

Underemployed Persons, Australia, May 1985 (6265.0).

Weekly Earnings of Employees (Distribution), Australia (6310.0) annual.

Committee of Inquiry into Labour Market Programs, *Report of the Committee of Inquiry into Labour Market Programs*, Australian Government Publishing Service, Canberra 1985.

Commonwealth Employment Service, *Report of the National Director 1984–1985*, Australian Government Publishing Service, Canberra, 1986.

Department of Employment and Industrial Relations, *Annual Report 1984–85*, Australian Government Publishing Service, Canberra, 1985.

Stricker, Peter and Sheehan, Peter, *Hidden Unemployment: The Australian Experience*, Institute of Applied Economic and Social Research, University of Melbourne, 1981.

Tasmanian Trades and Labour Council, *Official Trade Union Directory and Digest — 1986*, Hobart, 1986.

APPENDIX

Notes

Data pertaining to the labour force characteristics of the population are obtained from ABS population surveys. The population survey is the general title given to the household sample survey carried out monthly in all States and Territories. Emphasis in the survey is placed on the collection of data on demographic and labour force characteristics, the principal survey component being referred to as the labour force survey. The remaining part of the population survey consists of supplementary collections which are carried out either in conjunction with the labour force survey or, where the topics require personal interview or are too complex to be treated within the processing timetable of the monthly survey by means of special surveys, generally conducted once a year.

7.1 The **labour force survey** is based on a multi-stage area sample of private dwellings (about 33 000 houses, flats, etc.) and non-private dwellings (hotels, motels, etc.) and cover about two-thirds of one per cent of the population of Australia. The information is obtained from the occupants of selected dwellings by carefully chosen and specially trained interviewers. The interviews are generally conducted during the two weeks beginning on the Monday between the 6th and 12th of each month. The information obtained relates to the week before the interview (i.e. the survey week).

The labour force survey includes all persons aged 15 and over except:

(a) members of the permanent defence forces;
(b) certain diplomatic personnel of overseas governments, customarily excluded from census and estimated populations.
(c) overseas residents in Australia; and
(d) members of non-Australian defence forces (and their dependants) stationed in Australia.

7.2 Employed persons comprise all those aged 15 and over who, during the survey week:

(a) worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (including employees, employers and self-employed persons); or
(b) worked for 15 hours or more without pay in a family business or on a farm (i.e. unpaid family helpers); or
(c) were employees who had a job but were not at work and were: on paid leave; on leave without pay for less than four weeks up to the end of the survey week; stood down without pay because of bad weather or plant breakdown at their place of employment for less than four weeks up to the end of the survey week; on strike or locked out; on workers' compensation and expected to be returning to their job; or receiving wages or salary while undertaking full-time study; or
(d) were employers or self-employed persons who had a job, business or farm, but were not at work.

7.3 The **employment/population ratio** for any group is the number of employed persons expressed as a percentage of the civilian population aged 15 and over in the same group.

7.4 Unemployed persons are those aged 15 and over who were not employed during the survey week, and:

(a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week and:
  (i) were available for work in the survey week, or would have been available except for temporary illness (i.e. lasting for less than four weeks to the end of the survey week); or
  (ii) were waiting to start a new job within four weeks from the end of the survey week and would have started in the survey week if the job had been available then; or
(b) were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the survey week (including the whole of the survey week) for reasons other than bad weather or plant breakdown.

7.5 Actively looking for work includes writing, telephoning or applying in person to an employer for work; answering a newspaper advertisement for a job; checking factory or Commonwealth Employment Service noticeboards; being registered with the Commonwealth Employment Service; checking or registering with any other employment agency; advertising or tendering for work; and contacting friends or relatives.

7.6 The **unemployment rate** for any group is the number unemployed expressed as a percentage of the labour force (i.e. employed plus unemployed) in the same group.

7.7 The **labour force** comprises all persons who, during the survey week, were employed or unemployed, as defined above.

7.8 The labour force participation rate for any group is the labour force expressed as a percentage of the civilian population aged 15 and over in the same group. Because it is not practicable to ascertain the birthplace of persons in institutions (who are classified as not in the labour force), labour force participation rates for persons classified by birthplace are calculated by using population estimates which exclude those in institutions.

7.9 Full-time workers are those who usually work 35 hours or more a week and others who, although usually part-time workers, worked 35 hours or more during the survey week.

7.10 Part-time workers are those who usually work less than 35 hours a week and who did so during the survey week. When recording hours of work, fractions of an hour are disregarded.

7.11 Persons not in the labour force are those who, during the survey week, were not in the categories employed or unemployed, as defined above. They include persons who were keeping house (unpaid), attending an educational institution (school, university, etc.), retired, voluntarily inactive, permanently unable to work, inmates of institutions (hospitals, gaols, sanatoria, etc.), trainee teachers, members of contemplative religious orders, and persons whose only activity during the survey week was jury service or unpaid voluntary work for a charitable organisation.

7.12 Industry is classified according to the **Australian Standard Industrial Classification** (ASIC) 1978, and occupation according to the **Classification and Classified List of Occupations, Revised June 1981**.

7.13 Estimates from 1978 onwards are calculated to conform to revised population estimates which take account of the results of the 1981 Census of Population and Housing. Following the change in official population estimates to a place of usual residence basis after the 1981 Census, the population benchmarks used in the estimation of labour force survey data are compiled according to place of usual residence. To coordinate with the new benchmarks, the labour force survey questionnaire was changed in October 1982 to enable identification of each respondent's place of usual residence. The estimates from October 1982 are thus wholly according to place of residence. Prior to October 1982, the estimates are based on a combination of place of enumeration and place of residence.

Estimates are subject to two sources of error:

(i) **sampling error** — since the estimates are based on information obtained from occupants of a sample of dwellings they, and the movements derived from them, may differ from the figures that would have been produced if all dwellings had been included in the survey.

(ii) **non-sampling error** — inaccuracies may occur because of imperfections in reporting by respondents and interviewers and errors made in the coding and processing of data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures.

7.14 Industrial accident statistics have been collected in Tasmania by the ABS since 1969. Within the scope of the collection are accidents which result in death, or time lost of one complete day (or shift) or more, not including time lost on the day of the accident for which a compensation claim is lodged under the Workers Compensation Act 1927. Disease cases covered by the Act are also included, but there is no requirement that time be lost for these. The figures produced cover industrial accidents involving original claims only.

Notable exclusions from the collection are self-employed persons and all Australian Government employees. The exclusion of self-employed persons is likely to have a marked effect on figures for industries where self-employment is prevalent, for example, retail trade and rural industries. Because of the exclusion of Australian Government employees, some industry classifications are not covered at all; for example, defence forces and communications, while coverage is reduced in other industries.

Chapter 8

SPORT, RECREATION, TOURISM AND RELIGION

		Page No.
8.1	**Sport**	139
8.1.1	Sporting Achievements	139
8.1.2	Government Support	142
8.2	**Recreation in Tasmania**	142
8.2.1	Older Adults and Recreation	142
8.2.2	Youth and Recreation	143
8.2.3	Women and Recreation	143
8.3	**Tourism**	144
8.3.1	The Tasman Peninsula and Port Arthur	144
8.3.2	Management and Co-ordination of Tourism	145
8.3.3	Passenger Arrivals and Departures	146
8.3.4	New Tourist Developments	147
8.3.5	Who Visits and What They Do	148
8.3.6	Tourist Accommodation	148
8.4	**Religion**	149
8.4.1	The Christian Community: A Review of 1984–85	150
8.5	**References**	152
	Appendix	153

Chapter 8

SPORT, RECREATION, TOURISM AND RELIGION

The affluence of modern western society, built upon a traditionally strong emphasis on the physical, mental and spiritual well-being of the population, has channelled much attention towards effectively and efficiently providing for more and more leisure time. The result is a wide range of sporting, recreational, spiritual and tourist activities and facilities to meet not only local needs but also the interests of visitors to Tasmania.

8.1 SPORT

Tasmania provides its residents and visitors with abundant opportunities to take part in sporting activity, either directly as participants or indirectly as spectators. Few Tasmanian towns are without football or cricket ovals, lawn bowls greens, swimming pools, cycling tracks or sporting centres providing facilities for basketball, netball, badminton and similar sports. The coastline, whilst rugged and in places, treacherous, provides excellent boating and surfing venues which lure many Tasmanians to the water and provides a focal point for the now world famous Sydney to Hobart yacht race. It is no wonder then that for its population size Tasmania has provided an impressive register of national and world class sporting heroes, including Darell Baldock, David Boon, Danny Clark, Doug and Bill Youd, Bill Emmerton, Helen Gourlay, Peter Lawson, Geoff Ayling, Ian Davies, John Goss, David Connor, Stuart Hamilton, James Giannaros, Denise Millikan and Penny Gray.

Sport developed with settlement, and paralleled the trends of the mainland colonies. Whilst the first horse race meeting in Australia is reported to have taken place in Sydney in 1810, the first meeting in Tasmania was held not long after, at New Town near Hobart in about 1814. Similarly the unique game of Australian football is said to have commenced in Victoria in 1856 and then spread to Tasmania. By 1875, when the first club, Launceston, was formed, the new code had gained acceptance as the major winter sport in the State.

Cricket became the major summer sport even earlier in the State's history. The first match was played between troops and civilians in 1825 and the first club, Hobart Town, was formed in 1832. As in other States cricket ovals in the summer became football ovals during winter with many, particularly in the north and north-west, also providing a cycling track around the perimeter. Such amalgamation of function fostered the development of high standard playing fields in most centres of the island as multi-purpose facilities attracted funds from local and State authorities.

Government involvement in sports provision has become increasingly visible. Perhaps the earliest record of participation was Governor Arthur's tenancy grant of land near the Hobart Railway Station (now being replaced by new ABC studios) in 1832. This original involvement has now flowered into a Department of Sport and Recreation with its own Minister.

Major carnivals and events continue to provide a full sporting calendar. Cycling and athletics carnivals, football matches with a new state-wide roster in 1986, Sheffield Shield cricket matches, athletics carnivals and Hobart and Launceston Cups all provide entertainment for spectators, and challenges for contestants in a rich, varied sporting menu.

8.1.1 Sporting Achievements

The year 1984–85 brought many sporting successes for the State. Seven Tasmanians were chosen to represent Australia at the 1984 Los Angeles Olympic Games; Kathy Foster (basket-

ball), Peter Genders (canoeing), Penny Gray (hockey), Michael Grenda (cycling), Julie Kent (diving), Audrey Moore and Brett Stocks (swimming).

Michael Grenda became the first resident Tasmanian to receive an Olympic gold medal, for his win as a member of the Australian team in the 4 000 metres cycling pursuit. He also won the European World Cup in Czechoslovakia and turned professional in March 1985. Kathy Foster was appointed vice-captain of the Australian basketball team and won the Hall Medal for the best and fairest female player in South Australia.

Julie Dowling won a gold medal for the javelin in the World Wheelchair Games in England. In the Australian National Paraplegic and Quadraplegic Games in Sydney she created four new records in shotput, javelin and discus.

Mrs Lindy Goggin reached the quarter finals of the 1984 American Amateur Golf Championships and finished equal third in the Canadian Amateur title.

In cricket, two Tasmanians achieved national selection. Roger Woolley, picked as a wicket-keeper in the touring Australian team to the West Indies, became the first resident Tasmanian to play for Australia since C.J. Eady who played one test against England in 1896 and another in the 1901–02 English tour of Australia. Woolley's achievement was soon followed by David Boon who played for Australia against the West Indies in Brisbane and then toured England.

Rex Garwood (lawn bowls) and Maree Fish (women's hockey) were also chosen in Australian teams while the One Ton Huon-built *Intrigue*, skippered by Don Calvert, became the first Tasmanian yacht ever to win a place in an Australian Admiral's Cup team. Australia finished fourth. *Intrigue* was the outstanding boat of the team and Don Calvert was named inaugural Australian Ocean Racing Yachtsman of the Year and Tasmanian Sportsman of the Year 1985.

The State's top sportsmen and women performed creditably at the Australian Games held in Melbourne, winning 21 medals (eight gold, four silver and nine bronze).

Outstanding thoroughbred horse *Mendeara Etoile* won the $50 000 Victoria Handicap at Caulfield putting Tasmanian racing and breeding to the fore.

The Tasmanian woodcutting team consisting of David Foster, Bill Youd and George Foster, returned from a tour of the United States with four world records, four world titles and six U.S. titles to their credit. The team was the first Tasmanian woodcutting team to tour the U.S.

Peter Faulkner, Stuart Saunders and Roger Brown were selected to represent Australia in the under-25 cricket team that toured Zimbabwe.

Julie Kent won two diving medals at the Australian Diving Championships and the following month Jocelyn Millar won the national heptathlon title in Brisbane.

by Greg Fry

DAVID BOON

by Mark Gill

After many successful Sheffield Shield seasons and overseas tours with Australian under-age teams, David Boon finally burst into prominence at the senior level when he scored a magnificent century playing for the Prime Minister's XI against the West Indies in Canberra in January 1984. Boon, who hit 134 runs from only 136 deliveries with eight fours and one six, was named 'Man of the Match'. Earlier Boon had missed selection for the February tour of the West Indies and despite his classy knock was also overlooked for most of the World Series Cup against the West Indies and India. When given his chance in the last finals match, he scored a tidy 39.

In the following season, Boon was selected to play for Australia in the Second Test of the 1984–85 series against the West Indies in Brisbane. He scored 11 in the first innings and a defiant 51 in the second as Australia suffered an eight wicket defeat. It was an impressive debut. He fell to a superb catch in the first innings and an even better one in the second.

He didn't fare as well in the Third Test with scores of only 12 and 9 and subsequently was named as 12th man for the Fourth Test. But when returned to the eleven for the Fifth Test Boon scored 49 as Australia won by an innings and 55 runs to end a sequence of 27 games without a loss by the West Indies.

Boon began well in the World Series Cup that followed the Tests with scores of 50 against the West Indies and 44 against Sri Lanka. However, after only his second failure in seven innings, he lost his place in the side missing both the finals and the World Championship of Cricket which followed.

Undaunted, Boon finished the Sheffield Shield season in brilliant form and in March 1985 was announced as Sheffield Shield Player of the Season. This was a great achievement as he had only played in six of the ten possible games. To complete a great week for Boon he was later named in the team for the 1985 tour of England.

During the subsequent furore over the proposed 'rebel' tour of South Africa, he stated that he had not been approached by tour organisers and that in any case he would have refused to go.

Boon scored heavily in the first class matches in the early part of the English tour but had only a moderate one day series against England with scores of 12, 13 and 45.

After he had scored 14, 22, 4 and 1 in the first two tests there were serious doubts about his ability to handle Test class bowling on English pitches, especially the English spinners Emburey and Edmonds. But he continued to score well in county games with 138 against Essex, and maintained his position for the Third Test. Boon scored 15 in his only innings of that game but followed it with a magnificent 206 not out against Northamptonshire.

Finally Boon was promoted in the batting order to his favoured position at No. 3 for the first innings of the Fourth Test. A fine 61 was a welcome change of form for him at Test level. Presumably to his dismay, he was dropped down the order for the second innings and scored only 7. Boon's catching at first slip had been a bonus for the Australians during the first three Tests but in the Fourth Test he missed two vital catches. This and his second innings failure meant that he was left out of the two subsequent Tests.

Nevertheless, at the conclusion of the tour the Australian Captain, Alan Border, stated that he considered Boon would still develop into a Test batsman, despite the fact that he averaged only 17.71 in the England Tests. However, due to his magnificent form in the minor games, Boon finished third in the Australian first class averages for the tour with 20 innings, 2 not outs, highest score 206 not out, aggregate 832 and an average of 55.47.

Boon, appointed the new Tasmanian captain, began the 1985–86 Shield season in great form with 196 against New South Wales and 64 out of 102 against Western Australia.

Named in the Australian side for the First Test against New Zealand, Boon scored 31 and 1. In the Second Test Boon's second innings of 81 was a major contribution towards Australia's win. New Zealand won the series 2/1 with Boon scoring 12 and 50 in the Third Test.

It was against India that Boon became a Test player of note. In the first Test in Adelaide in December 1985 he scored his maiden Test century after being asked to open the innings by the Australian selectors. In scoring 123 Boon became the first Tasmanian resident to score a Test century.

After moderate scores in the Second Test, Boon (121) and Geoff Marsh (92) set a record opening partnership (217) for Australia against India in the Third Test. In the second innings Boon was run out for 25. All three Tests in this Series were drawn.

8.1 DAVID BOON'S TEST RECORD TO JANUARY 1986

Test series	*Test*	*First/Second innings*
1984–85 — vs	2nd	11/51
West Indies	3rd	12/9
in Australia.	5th	49
West Indies won 3–1		
Average 26.4		
1985 — vs	1st	14/22
England	2nd	4/1
in England.	3rd	15
England won 3–1	4th	61/7
Average 17.7		
1985 — vs	1st	31/1
New Zealand	2nd	0/81
in Australia.	3rd	12/50
New Zealand won 2–1		
Average 29.2		
1985–86 — vs	1st	123/11 n.o.
India	2nd	14/19
in Australia.	3rd	131/25
Series Drawn 0–0		
Average 64.6		

Total Test record to January 1986 —
13 tests, 24 innings, 1 not out, 754 runs, 32.8 average

8.2 DAVID BOON'S ONE DAY RECORD TO FEBRUARY 1986

One day series	*Versus*	*Score*
World Series Cup —	West Indies	50
vs West Indies and	Sri Lanka	44
Sri Lanka.	West Indies	4
Played in Australia,	West Indies	20
January 1985.		
Won by West Indies.	Sri Lanka	34
	West Indies	34
	Sri Lanka	3
Average		27.0
Three Match Texaco Trophy —		
vs England.	England	12
Played in England,	England	13
June 1985. Won by Australia 2–1.	England	45
Average		23.3
World Series Cup —	New Zealand	(*a*)
vs New Zealand	India	14
and India.	New Zealand	21
Played in Australia,	India	23
January, February 1986.	New Zealand	6
	India	83
	India	27
	New Zealand	10
	New Zealand	64
	India	76
	India (1st Final)	50
	India (2nd Final)	44
Average		38.0

Total One-day record to February 1986 — 22 games, 21 innings, 677 runs, 32.2 average
(*a*) Australian innings washed out.

In the World Series Cup Boon continued to bat well, with knocks of 83 and 76 against India the highlights of the preliminary games and scores of 50 and 44 in the two finals.

Boon's dramatic improvement in form at the international level culminated in him being named as third selector for the 1986 tour of New Zealand and as Vice Captain to Ray Bright for the tour of Sharjar in the Middle East.

It had been a meteoric rise for the 25 year old David Boon who at one stage was struggling to hold his place in the Australian team but who now was a key player for his country and one of the first selected.

It was as much a triumph for his character, courage, temperament and perserverence as it was for his abundant ability and excellent technique.

8.1.2 Government Support

In March 1985, the Premier announced the creation of a new Department of Sport and Recreation with its headquarters in Hobart and with Mr Brendan Lyons as its Minister. By then the number of government funded State Directors of Coaching had grown to seven, representing Australian football, basketball, cricket, golf, surf lifesaving, squash and netball with soccer having three regional Coaching Directors. In addition, a position of Development Officer was created on similar lines to that of the State Directors of Coaching to benefit the Amateur Athletics Association of Tasmania.

The Department is complemented by a Tasmanian Institute of Sport, located in Launceston and created to service the needs of the high performance athlete.

The Department of Sport and Recreation, in conjunction with the Tasmanian State Institute of Technology conducted approved Australian Coaching Council General Principles Level II courses both in Launceston and Hobart in an effort to improve the quality of sports coaching in the State. The Department also acts as a service agency for the Australian Coaching Council and assisted a number of sporting organisations conduct courses.

Funding of sporting facilities provides a major government involvement in sport. A netball centre at St Leonards, Launceston, and a hockey centre at Cornelian Bay, Hobart, are being developed at a cost of $3.26 million as a result of the Tasmanian Government's decision to match Commonwealth funding. The Derwent Centre, a multi-purpose exhibition, sporting and entertainment facility is to be built in Glenorchy as a Bicentenary Commemorative project. From a total project cost of $7.6 million, the Commonwealth will provide $900 000, the State Government $4.94 million and the Glenorchy City Council $1.76 million.

In March 1985 the Tasmanian International Velodrome was officially opened. Funded by the State Government it has quickly become recognised as an excellent facility for rock concerts and exhibitions as well as for sporting events. It was the venue for the Australian Cycling Championships in 1985 and again in 1986. It will also become the venue for a cycling satellite of the Australian Institute of Sport.

Government funding also created a world class rowing venue at Lake Barrington. Utilising a Hydro-Electric Commission storage lake, the facility is to stage the World Rowing Championships in 1990.

8.2 RECREATION IN TASMANIA

Australians, generally, are becoming aware that participation in satisfying leisure activities can make an enormous contribution to the physical, social and mental well-being of both the individual and the community. While these benefits apply equally to all people, historically certain sectors of our community have had lower levels of participation in leisure pursuits than others.

In light of the positive benefits which can result from participation in recreation, efforts are being made to promote recreation and sport as an appropriate concept for all Tasmanians.

Access to recreation opportunities can be seen as one of the significant measures of the quality of life in the community. This article highlights access to recreation of three groups in the Tasmanian community; the aged, youth and women.

8.2.1 Older Adults and Recreation

The ratio of people aged 60 years and over to the rest of the Australian population is increasing every year and will continue to do so well into next century.

In Tasmania, the 60+ year olds make up 14.2 per cent of the population. A large majority of these people have sufficient mobility, health and income to participate in the recreation activities of their choice. Their access to inexpensive, diverse activities is enhanced in this State, because its decentralisation and wealth of natural environment means that most towns offer a range of indoor and outdoor recreation and sporting opportunities within close distance.

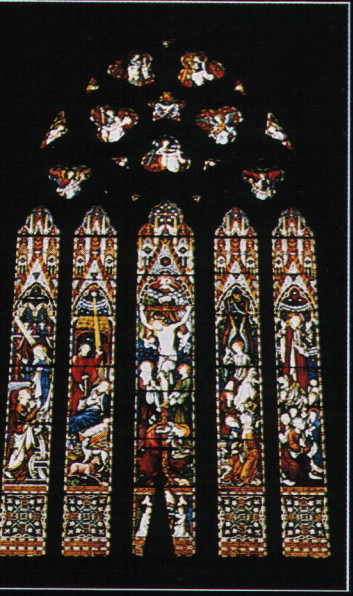
However, access to such opportunities can become difficult when there is a lack of transport, income or physical ability, or an attitude of withdrawal because of the loss of a loved one, family support or meaningful work.



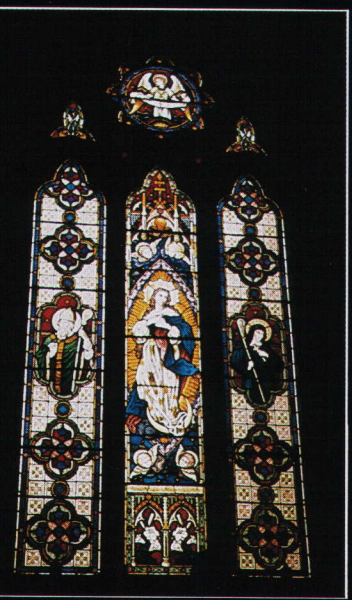
The Abel Tasman rounding Tasman Island *(Government Stills Photographic Section)*

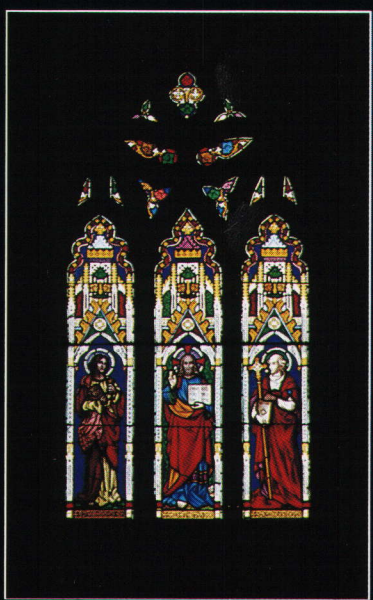


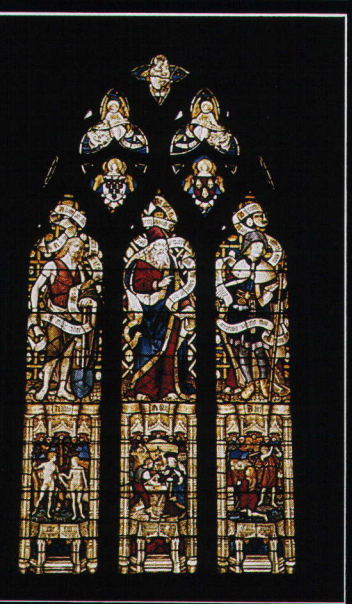
View from Commandant's residence, Port Arthur *(Government Stills Photographic Section)*











Top left, right and centre left:
St Mary's Cathedral, Hobart

Centre right:
St John's Church, Richmond

Bottom left:
St David's Cathedral, Hobart

(Edward Gall)

Stained Glass Windows



In the four decades since 1945, 4.2 million people have arrived in Australia from more than 120 countries.

At June 1981 there were more than 42 000 overseas born people living in Tasmania, just under 10 per cent of the State's population.







On arriving in Tasmania, migrants are assisted to settle into the community. They are encouraged to attend English language classes and are instructed in day-to-day 'survival' skills.



Hobart's Constitution Dock, normally home to part of Hobart's fishing fleet, takes on a carnival atmosphere every New Year with the arrival of yachts competing in the classic Sydney-to-Hobart yacht race. *(Don Stephens)*



David Boon batting for Australia against New Zealand in Perth, Western Australia, 1985. *(Australian Information Service)*

Organisations which aim to address these problems, attempt to link older adults to community activities through a variety of channels, such as:
through volunteerism: Retired Senior Volunteers Program and many charitable organisations offer their helpers a meaningful role in the community.
through clubs: Senior Citizens Centres, Pensioner Unions etc. enable their members to be involved in social, educational, and administrative activities.
through offering services: mobile libraries, meals on wheels, community organisations, domiciliary carers and welfare professionals attempt to improve the quality of life of housebound or disabled older adults and provide a link with 'the outside world'.
through day centres and institutions: several nursing homes and hospitals for the elderly employ staff to organise suitable recreation activities, and the number of day centres aimed at providing stimulating social activities for housebound elderly people is increasing.

Most of the above organisations are funded, either directly or indirectly through State and Commonwealth government departments, and recently some local governments have also implemented programs for their elderly citizens. The Department of Sport and Recreation supports all of the above categories of activity, either through direct grants, the provision of information and resources, or through its staff working with organisations to promote leisure awareness and skills amongst both workers and participants.

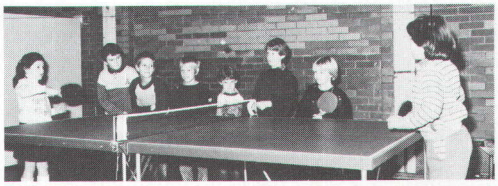
8.2.2 Youth and Recreation

Until recently, organisations concerned with young people generally were orientated towards the needs associated with education, employment and providing recreational activities. However, in less than a decade, the range of needs and issues confronting young people has increased dramatically, primarily as a result of social and labour market changes and the resulting repercussions associated with those changes.

Organisations working with youth have found a corresponding increased need to familiarise themselves closely with the roles of and services provided by a greater range of government and non-government bodies as they endeavour to meet these wider needs. There is a general belief that young people should be induced to benefit from leisure activities and leisure programs.

For many of Tasmania's young people access to recreation is not a problem. They are young and healthy and can easily take up one of the many options which abound in both the sporting field and in the State's plentiful natural environment. For others, however, such as those with disabilities or lack of ability as a result of financial hardship, access to such leisure activities is not so easy. Many youth lack the confidence and social skills which are taken for granted by their elders. These young people are often not aware of the recreational avenues open to them.

To assist young people in a range of life skills including leisure activities there exists a number of government and semi-government organisations. These include: the Community Youth Support Scheme; the Office of Youth Affairs, Youth Affairs Council of Tasmania; Forum of Tasmanian Youth Organisations; Department of Community Welfare; Project Hahn; Rural Youth; and the Department of Sport and Recreation.



Action at one of the sixteen Police and Citizens Youth Clubs

8.2.3 Women and Recreation in Tasmania

Traditional attitudes towards women, particularly those who fulfil the roles of housewife and mother, and the constraints on time inherent in these roles have contributed to decreased recreational opportunities for women and the development of an assumption that recreation is a less important concept for women. Unfortunately many women accept the view that they do not have time for leisure pursuits.

In Tasmania, the organisations which offer programs for women include: Neighbourhood Houses; C.Y.S.S.; T.A.F.E.; Technical Colleges and Adult Education; Education Department; Migrant Resource Centres; the Department of Sport and Recreation; Sporting Organisations and Sports Women's Association of Australia, Tasmanian Branch; Local Government; Office of Youth Affairs, Youth Affairs Council of Tasmania, Forum of Tasmanian Youth Organisations; Women's Information Service; Department of Community Service; and Project Hahn, an outdoor experience for young people.

When planning any programs, these organisations take particular care to cater for the specific needs of women which includes access to childcare, transport and information, and the opportunity to develop self-confidence and social contacts. For some women, these programs offer a welcome opportunity to overcome their isolation in the community. New friendships are made and self-help networks develop.

8.3 TOURISM

by Edward Gall

Tourism and Tasmania go hand-in-hand as the 'Holiday Isle'. Few other places on the globe have the same variety, both natural and man-made, as Tasmania. There are unspoilt beaches, picturesque fishing villages and historic towns. The relatively short distances between attractions and the high standard of highways make touring by bus, car or campervan a rewarding experience. There is quality accommodation that varies from luxury suites to good, clean rooms for the economically minded. Restaurants are of high quality and the cuisine features fresh local seafoods and dishes from around the world.

A striking feature of Tasmania is its rugged terrain. From most centres, mountain ranges are visible and there are few areas more rugged and spectacular than the western half of the State. Backpacking, hiking, rock climbing and, for the experienced, white water rafting are recommended in the world heritage wilderness areas: the South-West National Park; the Wild Rivers National Park; and the Cradle Mountain-Lake St Clair National Park.

With the increasing professionalism of the Tasmanian tourist industry, there is allowance for spontaneity and flexibility in itinerary planning, transport, accommodation and activities. Tasmania is the ideal destination for any holiday. It is not surprising that tourism is now a major sector in terms of its contribution to the State's economy, and is still capable of further strong growth.

8.3.1 The Tasman Peninsula and Port Arthur

One of the most scenically varied areas of Tasmania lies off the south-east corner. The Tasman Peninsula forms a microcosm of the scenic and historic features to be seen elsewhere in the State.

Access is usually by road, either by campervan, car or bus, although scenic flights can be chartered from Cambridge, near Hobart.

The gateway to this area lies at Eaglehawk Neck, just an hour's drive from Hobart. From the hills above the Neck there is a spectacular view of the beaches, bluffs and headlands that form the rugged eastern coast of the Peninsula. The narrow sandspit of Eaglehawk Neck is clearly visible, dividing the Tasman Sea from Norfolk Bay. Around the sweeping white sand beach at Eaglehawk Neck there are many hotels, motels and holiday cottages. At the northern end of the beach there is the Tessellated Pavement, a unique geological formation where regular cross-hatched jointing of the rocks has produced a large flat area, the surface of which has the appearance of paving stones. In contrast, at the other end of the beach the Blowhole, Tasman's Arch and the Devil's Kitchen are spectacular rock formations carved from sandstone by the pounding surf.

The township of Taranna is the next major attraction normally encountered by tourists. Aquatic fauna, including seals, penguins, pelicans, octopi and fish are on display at the Marine Park. Other attractions include historic boats and artifacts, a children's play area and a seafood restaurant. As well, visitors can catch live fish from the heavily stocked lagoon in the centre of the park.

Nearby is the Tasmanian Devil Park. As well as featuring the devil there are tame wombats, wallabies and other native animals. There is a walk-through aviary and a creek filled with native trout. Set in the adjacent apple orchards there is a cider factory with apples and fresh cider available the whole year around.

Located on the body of water of the same name, Port Arthur is Tasmania's premier tourist attraction. Surveys conducted in 1981 and 1984 by the Tasmanian Tourist Department showed that nearly half of all the visitors to the State take the trip to this landmark of Tasmania's penal origins.

8.3 Places seen by Adult Visitors, 1984 (%)

Port Arthur historic site	47.3
Cataract Gorge	36.2
Mt Wellington	33.4
Gordon River	26.8
Lake St Clair	21.1
Mt Field National Park	17.9

Source: Department of Tourism

The ruins and restored buildings of this former penal colony, are a landmark in history. First settled in 1830, some twelve and a half thousand convicts served their sentences there. For them the conditions were harsh and discipline strict. Because of the isolation of the Tasman Peninsula, few escapes were successful. It ceased being a penal settlement in 1877 and most of the buildings fell into disuse. All of the remaining buildings from the early developments are made either of locally quarried sandstone or out of convict made bricks.

Possibly the best known remaining building is the church, on which work started in 1834. Although only the shell of the church remains, it is in good order and remains as one of the more beautiful buildings in the settlement. The adjacent Government Cottage is currently undergoing repair.

The Penetentiary is the largest remaining building. This four storey brick building, orig-

inally designed as a store and granary, held 657 convicts. Nearby, the well preserved Round Tower Guardhouse, like a small medieval castle, looks down on the Penitentiary. The Model Prison is open to guided tours and the Asylum is open as a museum. Recently, the Commandant's House was renovated and decorated to the same standards as National Trust houses.

The Isle of the Dead can be visited by licensed launch. This island was an off shore cemetery, and guided tours show many of the interesting structures, headstones and sights of the island.

Near Port Arthur, the Bush Mill shows all aspects of operations of steam powered sawmill and bush camp as they would have operated in post-convict times. There is also a train ride providing family entertainment.

In contrast to the commercialised tourism of Port Arthur, Taranna and Eaglehawk Neck, the style of tourism on the rest of the Peninsula is more relaxed and personalised.

At Nubeena, the largest town in the area, there is a Country Club providing a centre for relaxation and enjoyment. Nubeena's sporting facilities include; a golf course, tennis courts, an indoor swimming pool, and bowling greens. Fishing, boating and swimming are popular off the beaches and in the surrounding bays.

In a development unique to Tasmania, the farm Lottah has been opened to guided tours. As well as viewing the life of pastoral Tasmania, there is a tour of a currently working sawmill, a four wheel drive tour of native forests and traditional campfires with billy tea and damper. There are also tours of Roaring Beach.

Roaring Beach is a wild surf beach with extensive rolling dunes. It is one of Tasmania's prime surfing locations and 'works' with westerly, south-westerly and southern swells. When coupled with Eaglehawk Neck and Fortescue Bay beaches which 'work' with north-easterly, easterly and south-easterly swells, there is almost always good surfing somewhere on the Peninsula.

North of Nubeena there are more convict ruins. From Saltwater River to Lime Bay there are a series of old coal mines, settlement ruins and historic convict built farmhouses. While the coal mines have been closed to the public, the remaining buildings and facades are a reminder of a Peninsula once flourishing with settlers.

Other attractions of this area include the extensive apple and pear orchards at Premaydena and the Country Life Museum and a riding ranch at Koonya.

A feature of the Tasman Peninsula is its variety of bushwalks. Some of the best short walks include those around: the Sloping Main; Fortescue Bay; Tunnel Bay; Waterfall Bay; and Brown Mountain.

There are three walks recommended as full day walks. On the southern coast Cape Raoul is a high bluff that ends in a spectacular saw-tooth ridge. There is a large seal colony on the wave-cut platforms below Cape Hauy, on the southern side of Fortescue Bay is another area of huge cliffs and two rock pillars, Totem Pole Rock and The Candlestick. Totem Pole Rock is possibly the most difficult and challenging rock climbing ascent in Australia. The third walk is one recently established by the Hobart Walking Club north of Fortescue Bay. It skirts bays and crosses many bluffs and cliff tops as it winds its way to Eaglehawk Neck.

However, the most striking walk is to Cape Pillar, recognised as the most spectacular cape in Australia. Normally an overnight walk, three days are recommended to take in all of the features. Tasman Island, The Blade and Cathedral Rock are some of the impressive features made of tall, vertical columns of dolerite rock. Chasm Lookout, at almost 300 metres is by far the highest sheer drop in Australia and ends in the ceaselessly pounding surf of the Southern Ocean.

As well as the permanent attractions of the Tasman Peninsula, there are special events throughout the year. Some of the more popular include the Port Arthur Boxing Day Woodchopping Carnival and the annual January Fun Run from Port Arthur to Nubeena. A major drawcard in the autumn is the big game fishing for the blue fin and yellow fin tuna that lurk off the coast, with boats and crew available for hire from both Eaglehawk Neck and Port Arthur.

With historic and scenic variety that attracts all age groups and activities that vary from leisurely relaxation to vigorous participation, it is little wonder that the Tasman Peninsula and Port Arthur is one of the top Tasmanian tourist attractions.

8.3.2 Management and Co-ordination of Tourism

The major body controlling tourism in Tasmania is the Department of Tourism. It promotes Tasmania as a tourist destination by undertaking marketing activities, providing tourist information and travel services. Its commercial outlets, the Tasbureaux, are located throughout Tasmania and other Australian States as well as overseas. Other aspects of the Department's operations include; establishing and maintaining standards for tourist accommodation, regulating particular roadsigns and undertaking research into the development of the tourist industry.

During 1984–85, expenditure by the Department of Tourism on advertising, promotional and publicity activities amounted to $4.2 million, a 40 per cent increase over the previous year.

A further $1.7 million was expended by members of the State's tourist industry in co-operative advertising with the Department. Sales receipts of the Tasbureaux during the year totalled $39.7 million, a 21 per cent increase over the previous year. Some 7.6 per cent of sales were received through the mainland bureaux.

The Department of Tourism advises the Tasmanian Development Authority in considering applications for financial assistance and in providing information and advice to prospective developers. During 1984–85, $537 332 was advanced from the Tourism and Recreational Development Fund. Of this, $505 462 was for grants with the remainder being used for loans. In all, 39 tourism development proposals received financial assistance.

The interests of the private sector of the tourist industry, particularly for the development of tourism, are expressed through the Tasmanian Visitor Corporation. As well, in liaison with the State Government and the Department of Tourism, it is responsible for promoting the conventions segment of the travel industry and for publicising the State's tourist attractions and travel facilities.

8.3.3 Passenger Arrivals and Departures

The monthly passenger arrival figures (collected by the Department of Tourism) show a distinct pattern with more people arriving in summer, reaching a maximum in January, and fewer people arriving in winter, creating a minimum in July. As well, there are minor peaks in April and October.

The Abel Tasman

Formerly called the *Nils Holgersson*, this 19 200 tonne vessel was named after the Dutch explorer Abel Jansoon Tasman who was the first European to sight Tasmania. Over more than 12 months it was extensively refitted at Rendsburg in West Germany at a cost of about $40 million. At the same time more than $4 million was spent upgrading passenger facilities at both the Devonport and Melbourne terminals.

Run by the *T-T Line* (Transport Tasmania), it left Melbourne on its maiden voyage in July 1985. The *Abel Tasman* more than doubled the capacity for passengers and vehicles of the previous ferry, the *Empress of Australia*.

First indications are that the new service is popular. Even before her maiden voyage, more than 70 000 passengers had made bookings for the first year's service. The number of arriving passengers using the route has markedly increased in the first three months of its service with increases compared to 1984 of 62 per cent for July, 16 per cent for August and 59 per cent for September.

There are many features on board for passengers. There are a total of 820 berths spread over 300 cabins of 2, 3 and 4 berth capacity. Most of the cabins have ensuite facilities and are air conditioned. There is a wide choice of accommodation from clean, comfortable economy cabins to first class luxury staterooms.

8.4 Passenger Arrivals and Departures, Interstate and New Zealand, Tasmania

Period	Arrivals				Departures
	By air		By sea	Total	
	Interstate	New Zealand			
1981	520 601	9 762	61 336	591 699	593 780
1982	516 140	6 863	60 767	583 770	588 829
1983	493 075	7 004	63 587	563 666	563 554
1984	511 773	7 054	61 039	579 866	578 098
1984 — November	38 162	458	5 882	44 502	42 937
December	56 039	633	5 902	62 574	46 687
1985 — January	63 097	934	5 997	70 028	86 528
February	45 070	804	5 366	51 240	48 881
March	46 872	1 004	5 456	53 332	55 549
April	48 729	690	5 098	54 517	55 969
May	46 737	766	3 652	51 155	59 836
June	41 544	697	—	42 241	39 762
July	29 490	371	3 782	33 643	35 108
August	42 405	512	6 105	49 022	46 845
September	45 214	695	7 752	53 661	52 228
October	46 039	619	8 140	54 798	51 840
November	39 470	564	8 721	48 755	46 898
December	55 399	763	9 708	65 107	52 775

Total passenger arrivals have shown an increase from 1972, reaching a maximum in 1981. The economic recession then caused a decline and by 1983 the total arrivals had declined by five per cent. However, late in 1984 there was a resurgence which has been retained until the end of 1985.

There was no sea passenger service in June 1985 as the *Empress of Australia* had completed its service and the replacement ship, the *Abel Tasman* did not commence until July. The effect of the *Abel Tasman* with its increased capacity has been to increase the sea arrivals and departures by taking some of the market share of the air passenger movements, hence the slight drop in air arrivals whilst total arrivals have increased.

The Auckland–Hobart Airlink

When the Hobart–Christchurch airlink commenced in 1980, there were hopes that this would be the beginning of an international tourism bonanza. Although the bonanza has not eventuated, the route has become popular. Air New Zealand and TAA operate weekly services that are used consistently throughout the year. Recently, usage has been increasing with passenger traffic for the 1984–85 financial year being 14 per cent up on the previous year.

In an attempt to increase Tasmania's market share of international tourists, some Lower Gordon River dam compensation money was used in upgrading the Hobart Airport at a total cost of about $6 million. As well as upgrading passenger facilities, the airport can now handle Boeing 767 aircraft.

Soon after the official opening, Qantas had its first international service into Hobart on 17 December, 1985, establishing the Auckland–Hobart airlink.

This new link will allow international visitors a circuit incorporating New Zealand, Tasmania, Victoria and New South Wales without the discouraging problems of back tracking and add-on fares that travel to Tasmania used to involve. It should increase the Tasmanian proportion of the lucrative American and Japanese tourist market.

A more direct tourist influx will come directly from New Zealand. New Zealanders are Australia's largest visitor group with an estimated 250 000 per year. Further, with about 80 per cent of them coming from the North Island and in particular from Auckland, the patronage for this route is potentially very high. This is especially so if at some time in the future Air New Zealand and even Singapore Airlines enter the route.

8.3.4 New Tourist Developments

Much of the focus of tourist development is currently on upgrading and developing accommodation.

Four Seasons, the State's largest accommodation chain, is spending $4.5 million upgrading many of its major properties throughout the State. Similarly, the Innkeepers group is improving its main accommodation establishments.

The Pines Resort, a $4.3 million project at Seven Mile Beach, opened in December 1985. Its 20 villa units are set in a prime position in pine forests next to a popular beach.

However, the major accommodation development of the year was the beginning of construction of an international hotel on the Hobart waterfront. After the Tasmanian public rejected the original design for the hotel, the Hotel Sheraton will be a twin-tower 12 storey building designed to match the existing buildings of the area. It will have 260 first class rooms, a convention area, a shopping complex, and a ballroom. Further projects commenced are the Salamanca Cirque, and the Galleria Salamanca which will provide shops, restaurants, accommodation units and other facilities for tourists.

On the West Coast the Mt Lyell copper mine, established in the 1890s, is being prepared for conversion into a working visitor attraction with a display of all aspects of modern mining. Also at Queenstown there is a program of improvements to the Galley Museum. A new tourist road has been opened between Zeehan and Strahan and construction has commenced on a new road to the King River, south of Queenstown. In the north-west, the Wynyard airport is being upgraded at a cost of $3 million to accommodate Boeing 737 aircraft.

There has been recent growth in the number of host farms and rural guest houses and there are claims that their occupancy rates have been increasing. Recently 22 of them formed an organisation called *Country Accommodation*. It has set a fixed tariff on bed and breakfast and aims to improve the standard of facilities and services.

Skiing facilities at Ben Lomond have been improved. Vehicular access has been upgraded and there are now two ski bar tows and six poma lifts operating on the slopes. A new tavern has opened and snowmobile tours are now available in winter. At Mt Field National Park there has been substantial grooming of the ski slopes at Mt Mawson. For the large number of visitors seeking a wilderness experience, there has been a proliferation of organisations taking rafting, walking and four wheel drive tours.

In an unusual innovation, the Tasmanian Environment Centre is providing regular half day and full day walks on Hobart's Mt Wellington. Led by trained botanists, these give an insight into the natural environment of forests and alpine meadows and feature continuous scenic views of Hobart.

8.3.5 Who Visits and What They Do

According to the results of a survey conducted by the Tasmanian Tourist Department, 274 300 adults visited the State in 1984 staying a total of 3.2 million nights, an average of 11.5 nights each. Almost 75 per cent came from Victoria, NSW or the ACT.

While most visitors still come from Victoria, the number is diminishing. An increasing number of people are now coming from New South Wales, Western Australia and overseas, particularly Europe and North America. In fact, Tasmania had a higher percentage of visitors from Europe and North America than Australia as a whole. On the other hand Tasmania had a much lower share of visitors from other countries indicating that the State is not attracting the Japanese and Asian tourists who are visiting other States.

8.5 Place of Origin of Adult Visitors to Tasmania (%)

From	*1978*	*1981*	*1984*
Victoria	51.3	46.6	45.0
NSW	20.7	23.0	24.2
ACT	3.2	3.7	3.5
SA & NT	8.5	9.0	8.0
Queensland	7.4	7.6	7.3
Western Australia	3.9	4.0	4.5
Europe	1.1	1.5	2.8
North America	1.1	1.6	2.3
New Zealand	1.4	1.5	1.5
Other Overseas	1.3	1.5	0.7

Source: Department of Tourism.

8.6 Overseas Visitors, Country of Residence, 1984 (%)

Country of residence	*To Tasmania*	*To Australia*
Europe	38	27
North America	32	19
New Zealand	21	23
Other	10	31

Source: Australian Tourist Commission.

Half of all visitors in 1984 were under 35 years of age and a further 18 per cent were aged between 35 and 44; 56 per cent were males and 33 per cent were people who were travelling alone.

8.7 Main Activities of Visitors 1984 (%)

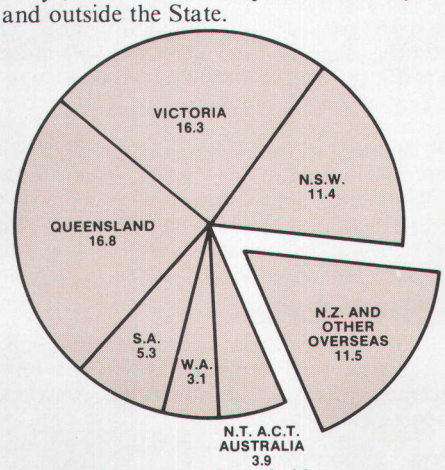
Visiting historic sites	56
Visiting Casino	48
Bushwalking or climbing	24
Canoeing or boating	6
Sea fishing	6

Source: Department of Tourism.

Most visitors seem to return. Previous surveys in 1978 and 1981, as well as the 1984 research have shown that only about 40 per cent of visitors are 'first timers' while nearly a third have made at least three previous visits.

Tasmanians on Holiday

Tasmanians, like the visitors to the State, also take holidays. A survey of householders conducted in October 1984 found that 20 per cent of householders holiday only in Tasmania and another 19 per cent holiday only outside the State. Perhaps surprisingly 32 per cent of Tasmanian households stay at home for their holidays, while another 30 per cent holiday both in and outside the State.



Destination of Tasmanian Households Holidaying Outside the State, ('000)

8.3.6 Tourist Accommodation

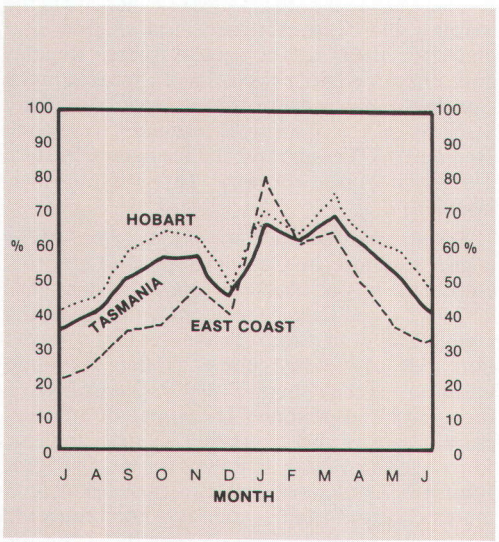
With the increasing importance of tourism to the Tasmanian economy, it is fortunate that Tasmania is well served by tourist accommodation facilities. All regions provide and maintain the full range of facilities — hotels, motels, guest houses, holiday units and caravan parks.

An indication of the 'well being' of the tourist industry is the actual use of tourist accommodation. The seasonal nature of the tourist industry, as seen by fluctuations in passenger arrival figures, is also reflected in the pattern of accommodation use. The significant monthly variations in occupancy rates are frequent and

8.8 Tourist Accommodation, Tasmania, June 1985

Number at 30 June 1985	*Hotels, motels and guest houses*	*Holiday units*	*Caravan parks*
Establishments	152	33	61
Guest rooms/units	4 276	453	..
Bed spaces	11 755	187	..
Sites — powered	..	..	3 075
— unpowered	..	..	2 169

somewhat predictable. In general, the summertime occupancy rates are twice those of winter rates. These seasonal variations are apparent across the State but there are significant differences between the regions in terms of the magnitude of the variations. The seasonality of the industry is far greater outside of Hobart, particularly for the East Coast which is essentially a summertime destination whereas Hobart attracts visitors all the year round (Table 8.10, Appendix).



Hotel and Motel Room Occupancy Rates Selected Regions, 1984–85 (%)

Perhaps surprisingly the month with the consistently highest occupancy rates for hotels and motels is March, but holiday units and caravan parks, less surprisingly, have their highest occupancy rates in January. The reasons for the March peak for hotels and motels are not clear. One reason could be that holidaying families favour holiday units and caravan parks in summer whereas couples or singles use hotel and motel accommodation, deferring their holidays until schools return and taking advantage of the normally mild March weather. March is also a popular month for conferences and conventions.

8.4 RELIGION

At the 1981 Census, over 75 per cent of Tasmanians claimed affiliation with a Christian denomination and less than one per cent indicated adherence to a non-Christian religion. Over a third of the population were Anglican with Roman Catholics the next largest denomination. Compared with 1976l, total Christian adherence fell by just over two per cent while the number affiliated with a non-Christian religion rose substantially.

8.9 Religious Denomination, Tasmania, 1981

Religious demonination	*Persons no.*	*Proportion per cent*
Christian —		
Baptist	7 965	1.9
Brethren	3 947	0.9
Catholic (*a*)	78 143	18.7
Church of Christ	2 110	0.5
Church of England	151 207	36.1
Congregational	1 790	0.4
Jehovah's Witness	1 510	0.4
Latter Day Saints/Mormons	1 281	0.3
Lutheran	1 631	0.4
Methodist — including Wesleyan	19 906	4.8
Orthodox	1 855	0.4
Pentecostal	1 357	0.3
Presbyterian	11 575	2.8
Salvation Army	3 202	0.8
Seventh Day Adventist	1 464	0.3
Uniting Church	17 668	4.2
Protestant undefined	5 217	1.2
Christian n.e.i.	5 586	1.3
Total	317 414	75.8
Non-Christian —		
Buddhist	236	0.1
Hebrew	145	0.0
Muslim	369	0.1
Non-Christian n.e.i.	513	0.1
Total	1 263	0.3

(*a*) Includes Catholic and Roman Catholic.

As well as their normal worship and pastoral roles, the churches have continued to provide an active welfare ministry. A newly established Anglican Farmily Care Service joined the Salva-

tion Army, the St Vincent de Paul Society, Centacare and the City Mission in providing emergency relief, accommodation and family support services. The Catholic Church provides hospitals in Hobart and Launceston while the Anglican Church runs St Lukes Hospital in Launceston.

Church-provided education has expanded over the last decade, particularly the Reformed Church with several newer groups settin gup schools to complement the strong educational involvement of the Catholic, Anglican, Uniting Church, Seventh Day Adventist and Luteran churches.

The only full-time training for church work in Tasmania is provided by the Worldwide Evanglization Crusade College at St Loenards, Launceston. In 1984 the college employed 18 staff for an enrolment of 74 students. Since the closure of St Wilfred's College, Cressy, in the 1930's, Anglican students have been trained for formal qualifications by part-time tutors at Christ College, a residential college associated with the University of Tasmania.

While the influence of the churches has declined compared with the early period of settlement, they continue to play a substantial role within the Tasmanian society. As the following review of the major churches suggests, that role is seen as buoyant and vital.

8.4.1 The Christian Community: A Review of 1984–85

by Lindsay Tuffin

Growth, increasing relevance and optimism are the key points to emerge from an assessment of the religious life of Tasmanians in 1984–85. For example the Uniting Church has observed increasing interest in religion in Tasmania — for reasons which it observes to be both historical and contemporary. The Church also sees current unrest as being a reason for greater interest in the Church. The nuclear threat and other uncertainties of society, unemployment, AIDS, cancer, emphasise human frailty and lead people to a deeper searching for the meaning of life and how to cope with the thought of death.

The Baptist Union has observed just a small increase overall but keen observers are predicting a growing awareness of what the gospel has to offer. This would be seen in a more meaningful approach to worship and a sincere desire to bring faith to terms with reality. Some outreach ventures in evangelism have brought in a number of people.

The Salvation Army also observes a healthy increase and interest in religion in Tasmania. A growing awareness of the importance of spiritual values in life, and a disenchantment with the materialistic approach to life has resulted in a greater appreciation of quality living.

For the Catholic Church, the numerical growth has not been dramatic, although signs of a spiritual deepening in faith may be gauged by the proliferation of prayer groups and new initiatives of parish renewal. A dynamic church is emerging rapidly in Tasmania. More than 600 people around the State have been involved in parish renewal weekends while a total of 7 124 people have attended parent effectiveness courses and family life education pioneered by Father P. Connolly of Hobart.

Other signs for optimism were, growth in church youth groups and an increased demand for places in church-related schools. In recent years enrolments in Tasmanian Government schools had fallen from 73 100 to 69 100 while in the same period numbers at Catholic schools had risen from 10 000 to 11 000 and numbers in other church schools had risen from 4 100 to 4 800.

There has also been a noticeable increase in the amount and depth of coverage of religious and church matters in the secular press. Regular columns on religious topics have appeared in the *Sunday Examiner* in Launceston (Lindsay Tuffin) and the *Sunday Tasmanian* (Rev. Greg Henderson). Thought for the Day and Christian Television spots appeared to maintain their popularity.

Scripture-based study and prayer groups show a new response to the alienation and spiritual emptiness in the hearts of many Tasmanians. This was particularly evident among young people. Statewide youth conferences had attracted hundreds of young people as they explored questions of their involvement in the Church in the 1980's and beyond. The apparent spiritual emptiness was also being met by activities like Marriage Encounter, Evenings for the Engaged, Pre-Cana Conferences which help to provide a more healthy attitude to marriage and family life in a society where values are crumbling and the breakdown of family life has reached tragic proportions.

The Church and Youth

The churches are particularly optimistic because of a perceived growing interest in Christianity among young people. For example, the Uniting Church speaks of exciting initiatives in youth ministry leading to an upsurge of interest, involvement and commitment among young people.

For the Roman Catholic Church, the growth of church youth groups could be measured by the example of the Antioch Movement for 16–20 year olds. In the past 12 months more than 800

young Catholic people joined this vigorous movement in at least 13 Tasmanian parishes. More than 60 adults are involved in guiding young people.

The Baptist Church also observes an increasing interest among teenagers: 'the Church seems to be gaining in credibility among young people in the State and a concerted effort to co-ordinate and consolidate this is already showing encouraging results'.

This interest is also evident among students on the tertiary campuses. Christian groups — both at the University of Tasmania and the Tasmanian State Institute of Technology — report growing numbers and committed, active memberships. For example, at the University, there are six different Christian groups with up to 70 people associated with each. The campus groups also illustrate growing co-operation and involvement between denominations. All six Christian groups on campus, from Charismatic to Catholic, planned a lecture series by Christian communicator John Smith. The series, called, 'What Really Matters' had (Catholic) Senator Michael Tate as patron, and (Church of Christ) Hank Petrusma MLC as Chairman.

The positive response to religion among young people is also reflected in the reaction by high school students to an educationally-based presentation of Christianity as an option for life. The program, called Christian Option and presented by the inter-denominational agency. Scripture Union, was presented in 23 high schools in Tasmania last year. According to Scripture Union's Director, Mr David Reeve, the program is a good barometer for the attitudes of young people who have generally no contact with the Church. This increasing interest is also reflected by another inter-denominational group, Fusion, who work among unemployed young people. Fusion, with creative inspiration from its Tasmanian workers, produced 'Regardless', a highly multi-media production which toured Australia to celebrate International Youth Year. The production highlighted the 'lostness' (in unemployment, poverty, alienation etc.) of part of this generation of young people in materialistic Australia.

The Church in Society

The conflict between materialism and Christian values and the relevancy of the Church are two themes that emerged from questioning Tasmania's church leaders. According to the Catholics the Church remains very relevant 'even though less than one-third of baptised Catholics regularly practise their faith'. Through social welfare agencies the Church was helping Australians cope with the breakdown of marriages and family life, loss of jobs and so on.

The Salvation Army saw its relevance particularly in terms of its ministry to the present and grass-roots needs of the people. 'We are aware of an increased dedication among the Christian church to meet the material needs of people; while the gospel message had its prime place of importance, it lacked genuine concern when there was no practical expression of love and caring.'

The Baptist Union saw the Church as very relevant because 'this great nation which has so much going for it is failing miserably. Our attempted and successful suicide rate means many people lack the ability to cope. Mental and physical pressures are enormous and in this and other areas the Church message is more than relevant; if allowed it can be the answer'.

The past year was significant for growth in dialogue and understanding fostered by bodies like the Tasmanian Council of Churches and the Heads of Churches Committee. Through the Tasmanian Council of Churches member churches co-operated to make an impact on community attitudes with well researched and cogently presented statements on issues such as in-vitro fertilization, and the spread of pornographic videos as well as to launch appeals for Africa and conduct A Day of Prayer for South Africa. Churches such as the Uniting Church, Roman Catholic, Anglican, Baptist, Churches of Christ, Salvation Army and Society of Friends also worked together to deepen unity by studying the World Council of Churches document on baptism, the eucharist and ministry, and being involved in the wider life of the community through commissions such as the World Justice and Peace Commission and the Church and Society Commission.

Dr Robert Runcie in Hobart

The visit of the Archbishop of Canterbury, the Most Rev. Dr Robert Runcie was one of the highlights for the Anglican Church, and other churches in 1985.



Photo: Mercury

Dr Runcie was the guest at a luncheon at Government House for invited state and civic representatives together with representatives of other churches in the diocese. He also visited the Antarctic Division headquarters and the new St Clements Church at Kingston. The Archbishop also preached and celebrated a diocesan eucharist in the Cathedral.

The Catholic Church observed that the visit of Dr Runcie had 'brought a message of hope and unity and was thanked by Archbishop Young for his tolerance and noble simplicity with which he expressed the relevance of Christianity in today's world'.

The Church and the Future

According to the Uniting Church Moderator, Jill Tabart, 'the Church will play an increasingly important role in society. It will inevitably be an increasingly unpopular role, but the church has flourished in the past against opposition and if we are true to our calling to face up to evil and injustice opposition is to be expected. I anticipate this public stance because I believe the Church is playing, and will continue to play, an increasingly important role in individual's desire for personal growth and spiritual development. The renewal movements of various kinds that are sweeping through the churches are bringing the basics of the faith, both personal and corporate, to the fore, and this emphasis must empower and revitalise the Church'.

The Baptist perspective given by R.W. Preece sees a much clearer demarcation developing between the church-involved person and the non-church goer. 'There is no doubt that the church must become much more flexible in the future and must also be aware of the need to break down barriers of misconceptions and misunderstanding about the Church in the 80's. For too long the Church has been hamstrung by tradition.'

The Catholic Church believes that 'optimism must be the key note in facing the future of the Catholic Church in Tasmania. Despite prophets of doom in some quarters there are encouraging signs of hope for growth and deepening of faith and commitment. Lay leadership is developing. More than 200 people are currently involved in Adult Education and Faith Programs'.

The Salvation Army was also looking to the future with optimism. Its plans include redevelopment of Church property in Hobart to house the Divisional office, the State Social Office and the Family Welfare Centre; an extension of the Alcoholic Rehabilitation program in conjunction with the State Government; the implementation of a Church growth program within The Salvation Army; the introduction of State Inservice Training Courses for Officers; and the extension of The Salvation Army Emergency Service units with the appointment of another mobile unit at Cornwall on the East Coast and the instalment of a two-way radio system.

Radio, in fact, has become an important and successful means of communication for the Christian community in a wider sense. For six years Hobart has had its own Christian radio station. Now, a group in Launceston have received a licence for a northern station while another group in the north-west has made test transmissions as they too prepare an application for a licence. It is the growth in such ventures that are the practical and tangible signs that the optimism expressed elsewhere has a solid base.

8.5 REFERENCES

Atkinson, G., *Everything You Ever Wanted to Know About Australian Rules Football But Couldn't Be Bothered Asking*, The Five Mile Press, Victoria, 1982.

Australian Bureau of Statistics, *Tourist Accommodation, Tasmania*, Hobart, quarterly.

Department of Industrial Development, *Tasmania, Australia*, Hobart, 1983.

Department of Tourism, *Tasmania Visitor Survey 1984, Comparative Summary*, Hobart, September, 1985.

Pinchen, K.A., *A Century of Tasmanian Football 1879–1979*, Ed by A. Leesan, Tasmanian Football League, hobart.

Pollard, J., *Australian Cricket: The Game and the Players*, Hooper and Stoughton, Sydney, 1982.

Pollard, J., *The Pictorial History of Australian Horse Racing*, Lansdowne Press, Sydney, 1981.

APPENDIX

8.10 Tourist Accommodation: Regional Summary, 1984–85

Particulars	Hobart	Southern	Northern	Mersey-Lyell	Tasmania	East Coast
Hotels and Motels — Number and Capacity — At 30 June 1985						
Establishments	47	20	45	40	152	15
Guest rooms	1540	405	1239	1092	4276	415
Bed spaces	3781	1363	3572	3039	11755	1405
Hotels and Motels — Room Occupancy Rates — 1984–85						
1984 — July	41.0	20.7	36.8	32.8	35.7	20.5
August	44.9	27.2	41.1	37.1	40.1	26.1
September	58.9	37.6	53.7	41.1	50.8	35.2
October	64.0	36.6	58.9	49.8	56.3	37.6
November	63.4	48.5	57.0	54.2	57.8	48.7
December	47.8	40.1	47.1	44.5	46.0	40.5
1985 — January	70.9	76.4	61.7	61.9	66.4	80.9
February	64.8	59.6	61.1	59.9	62.0	61.7
March	76.0	61.9	68.8	63.8	69.5	64.3
April	63.8	52.8	62.9	54.4	60.1	48.1
May	58.8	40.5	50.5	46.3	51.5	36.0
June	46.0	31.5	40.7	36.9	40.8	31.7
Holiday Units — Number and Capacity — At 30 June 1985						
Establishments	9	4	11	10	34	8
Units	127	51	186	85	449	108
Bed spaces	489	256	1047	417	2209	527
Caravan Parks — Number and Capacity — At 30 June 1985						
Establishments	6	16	15	22	59	8
Capacity —						
Powered sites	311	529	823	1412	3075	552
Unpowered sites	210	411	922	626	2169	320
Cabins, flats, etc.	—	21	7	44	72	11
Total	521	961	1752	2082	5316	883

Note: (i) Monthly occupancy rates for Holiday Units and site occupancy rates for Caravan Parks are available on request from the ABS.

(ii) Regions are Statistical Divisions except East Coast Tourist area which, although defined separately, is included in the figures for the Northern and Southern Statistical Divisions.

Chapter 9

EDUCATION

		Page No.
9.1	**Preschool Education**	156
9.2	**Primary Education**	156
9.3	**Secondary Education**	157
9.3.1	Retention Rates in Secondary Schools	158
9.3.2	School Locations	160
9.4	**Tertiary Education**	160
9.4.1	University Education	160
9.4.2	Advanced Education	163
9.4.3	Technical and Adult Education	164
9.5	**Education Funding**	164
9.6	**Libraries**	165
9.6.1	The State Library	165
9.6.2	Special Libraries	165
9.6.3	Academic Libraries	165
9.6.4	Education Libraries	166
9.7	**Museums**	166
9.7.1	Tasmanian Museum and Art Gallery	166
9.7.2	Queen Victoria Museum and Art Gallery	167
9.8	**References**	167

Chapter 9

EDUCATION

In 1869 Tasmania became the first colony in the British empire to make education compulsory. In 1898 school attendance was made obligatory between the ages of seven and thirteen and in 1912 between six and fourteen years. In 1946 Tasmania became the only Australian State to make attendance compulsory up to the age of sixteen, the starting age remaining at six.

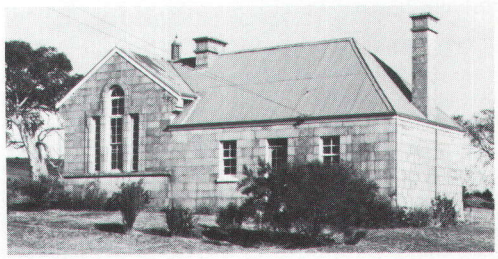
Since 1945 the task of Tasmanian educational authorities, as in other Australian States, has been to provide more schools, more teachers, and better facilities within pressures to restrain expenditure and cater for a wider range of curriculum offerings. The principal factors exerting these pressures were a rapidly growing school population, changed attitudes to education resulting in increased demands for secondary and tertiary education, and general community acceptance of the need for better education.

In recent years the pressures have changed, with a rapid growth in unemployment, shrinking employment opportunities and technological changes placing new demands on education systems. In addition, the Commonwealth Government has accepted a greater financial responsibility and provides funds through the Commonwealth Schools Commission and the Tertiary Education Commission.

Education in Tasmania is provided at primary, secondary and tertiary levels by government institutions and to secondary level by non-government schools.

In rural areas primary education is generally provided by small government primary schools and district high schools. Each type of school draws pupils from outlying localities. Transport is free, an example of the high priority given to meeting the educational needs of children in rural areas.

In primary schools, classes are usually heterogeneous with teachers devising programs for children of various ability levels. Pupils progress to the next grade on the basis of their individual achievement and age rather than be promoted by their ability.



Jericho Schoolhouse

The primary school curriculum is designed to cater for the intellectual, physical, social and emotional development of children during their critical formative years. The curriculum emphasises the acquisition of basic language, writing and number skills within the wider context of developing a capacity to communicate, think and value. The school's task is to provide programs that enable each pupil to develop skills appropriate to his or her stage of development and that will foster further learning. These programs also provide for creativity and arousing the imagination as well as giving the opportunity to develop initiative and logical thought processes.

Education Department policy is directed towards integrating children with special needs into normal schools. Special schools provide for children with different forms of handicap and who are unable to benefit from instruction in normal schools. Instruction varies according to the type of handicap. In cases of physical handicap the main need is to maintain normal or near normal individual programs. Schools and classes for intellectually handicapped children follow a program that is tailored to meet individual needs.

Current Education Department policy is directed towards educating children in their local communities. There has been positive discrimination towards country children and steps have been taken to make the secondary education available in district high schools comparable with that provided in urban high schools.

All government high schools have a number of feeder primary schools. The high school curriculum provides a general, comprehensive education within a framework of subjects endorsed by the Schools Board of Tasmania. Most Year 7 and 8 pupils follow a common course developed by the school and suited to their needs. In Years 9 and 10 a wide range of academic, technical and cultural subjects provide the basis for pupils to choose a program that satisfies School Certificate requirements as well as allowing them to follow personal interests. Subjects generally are assessed at three levels but some are offered only at the most demanding Level III and others are not offered beyond Level II.

The subjects for the School Certificate may be taken at various levels and a wide choice is available to cater for different levels of ability and interest. A preliminary award may be granted to those candidates who leave school without qualifying for a full award in a subject. The full award is granted to candidates who successfully complete the full syllabus in a subject. The certificate is awarded as a result of a system of regional moderation which has been developed to ensure comparability of standards between schools.

Senior secondary colleges were developed to concentrate specialist Higher School Certificate teaching in a few centres. The students also benefit from an intermediate step between high school and tertiary education.

General admission policy of the colleges is one of 'open door' to most courses and enrolments are of students who have passed the age of compulsory attendance. In recent years there has been an increase in the number of students passing directly from high schools as well as a considerable increase in mature-age students studying HSC subjects.

The secondary colleges have developed a wide range of offerings not specifically tied to the traditional HSC subjects. These aim to satisfy the needs of the more diverse group of the student population. Colleges, especially those in the Hobart area, have expanded significantly into the area of late afternoon and evening programming of classes for the large number of adult part-time students seeking a range of options from academic HSC to elective and recreational pursuits.

Candidates normally sit for Higher School Certificate subjects at the end of the fifth and sixth years of secondary education. The certificate is awarded as a result of assessments completed in November each year. Subjects may be studied at Level II or Level III but both levels are not necessarily available for all subjects.

Requirements for matriculation are determined by the University of Tasmania from the result of the Higher School Certificate assessments conducted by the Schools Board of Tasmania.

9.1 PRESCHOOL EDUCATION

Until 1969, government preschools were established on the initiative of groups of parents. The Education Department provided buildings but eventually recovered half its outlay from parents. From 1969 all new facilities for preschool education were provided in kindergartens attached to primary schools. There are now kindergartens which are part of primary schools and others which are not attached to primary schools. Education Department policy aims to provide kindergarten for children of four years and over on 1 January of any given year.

Most preschools are conducted on a sessional basis (i.e. sessions of two to three hours for two to five days per week). Preschool programs generally favour the free play approach with emphasis on children's social and emotional development through creative activities. Parents often contribute by assisting at some sessions or by the purchase of play materials and educational resources.

At 1 July 1985 there were 168 government schools with attached kindergartens and 27 separate kindergartens with enrolments of 5 419 and 875 respectively.

Non-government kindergartens form a minor part of total non-government enrolment. The numbers are split fairly evenly between attached and separate kindergartens. Catholic schools have no kindergartens.

9.2 PRIMARY EDUCATION

Age of entry to preparatory classes is 5 years and for Year 1, 5½ to 6 years of age.

Government primary schools seldom enrol more than 600 pupils. The school is normally located close to pupils' homes. Many primary schools have six grades in addition to a kindergarten and a preparatory class but this can vary according to the location of the school.

In 1985 there were 166 government primary schools. The majority (157) commenced with a preparatory grade and went to Year 6. There

9.1 Primary Schools, Tasmania

Particulars	Government (a)		Non-Government	
	1980	*1985*	*1980*	*1985*
Number of schools	167	166	33	41
Number of teachers —				
Full-time	2 393	2 397	340	400
Part-time	534	432	99	165
Total	2 927	2 829	439	565
Males	566	658	72	95
Females	2 361	2 171	367	470
Number of pupils —				
Males	22 699	19 335	3 984	4 453
Females	21 239	17 951	4 243	4 548
Total	43 938	37 286	8 227	9 001

(*a*) Includes special education.

were a further 26 schools which were combined primary and secondary schools (district and district high schools). Of the 37 286 pupils enrolled in primary grades in these 192 schools 19 335 were males and 17 951 were females. These schools had 2 239 full-time primary school teachers and 383 part-time teachers in 1985.

Non-government primary schools seldom enrol more than 400 pupils. The most common primary schools have six grades and a preparatory class.

In 1985 there were 41 non-government primary schools. Only 60 per cent (24) commenced with a preparatory grade and went to Year 6. There were a further 24 schools which were combined primary and secondary schools. Of the 9 001 pupils enrolled in primary grades in these 65 schools, 4 453 were males and 4 548 females. These schools had 400 full-time primary school teachers and 165 part-time teachers in 1985.

The percentage of total pupils enrolled in primary grades has been decreasing consistently in the 1980s. In government schools there has been a fall from 60.8 per cent in 1980 to 55.8 per cent in 1985 while in non-government schools the drop has been from 56.3 per cent to 52.8 per cent. The fall in the non-government schools percentage is more significant when one considers that total primary enrolment in these schools has risen from 8 227 pupils in 1980 to 9 001 pupils in 1985.

The major cause of the falling proportion of students enrolled in primary grades is the lower birth rates of the 1970s. Higher birth rates in the 1980s will reverse the trend in the next few years and continue into the 1990s.

9.3 SECONDARY EDUCATION

Almost all children attend secondary classes starting at an age from 11½ to 13 years. The first four years of secondary education (Years 7 to 10 inclusive) are catered for in high schools or district high schools which are non-selective, comprehensive and provide a broad general education. All, except two high schools in Hobart, are co-educational. The School Certificate is generally gained at the end of year 10. The final two years (Years 11 and 12) leading to the Higher School Certificate are completed in a secondary college.

The majority of students studying HSC subjects are in their fifth and sixth year of secondary education. However, an increasing number are mature-age students — people who have not been enrolled in secondary education for at least 12 months. The increase has coincided with a large increase in part-time enrolment at secondary colleges; in 1981 there were 829 part-time students while in 1985 there were 2000 part-time students of whom 1 571 were mature-age.

In 1985 there were 34 government high schools and 6 secondary colleges in the State. Thirty-three of the 34 high schools commenced at Year 7 and went to Year 10. All 6 secondary colleges had only Year 11 and 12. In addition, there were the 26 combined primary and secondary schools. Of the 28 733 pupils enrolled in secondary grades in these 66 schools 14 634 were males and 14 099 females. There were 2 351 full-time secondary school teachers and 322 part-time teachers in 1985.

In 1985 only five non-government secondary schools operated. There were a further 24 combined primary and secondary schools. Of the 8 049 pupils enrolled in secondary grades in these 29 schools, 3 793 were males and 4 256 females. There were 506 full-time secondary school teachers and 208 part-time teachers in 1985.

The trend with secondary grade enrolment is the reverse of primary grade enrolment. As birth rates fell in the 1970s the proportion of pupils in secondary grades rose. In 1980 27 497 pupils were enrolled in government secondary schools accounting for 38.0 per cent of total enrolments.

9.2 Secondary Schools, Tasmania

Particulars	Government		Non-Government	
	1980	*1985*	*1980*	*1985*
District and district high schools	27	26	—	—
High schools	34	34	26	29
Secondary colleges	7	6	—	—
Total schools	68	66	26	29
Number of teachers —				
Full-time	2 364	2 351	371	506
Part-time	210	322	193	208
Total	2 574	2 673	564	714
Males	1 442	1 494	255	342
Females	1 132	1 179	309	372
Pupils —				
Year 7–9	18 018	19 016	4 045	5026
Year 10	5 733	5 818	1 259	1 564
Year 11 and 12	3 746	3 899	1 089	1 459
Ungraded special	848	844	—	—
Total	28 345	29 577	6 393	8 049
Males	14 377	15 138	2 953	3 793
Females	13 968	14 439	3 440	4 256

By 1985 this had risen to 43.0 per cent with 28 733 pupils enrolled. Corresponding figures for non-government schools were 43.7 per cent and 47.2 per cent respectively. Total non-government secondary enrolments, like primary enrolments, have increased 26 per cent over this period from 6 393 pupils in 1980 to 8 049 in 1985.

9.3.1 Retention Rates in Secondary Schools

Apparent grade retention rates are measures of the tendencies of students to remain in secondary education from Year 7 to Year 10, Year 11 and Year 12. For example, to calculate the apparent retention rate of students in Year 12 in 1985 the number of those students in 1985 is expressed as a proportion of the number of students in Year 7 in 1980 (1980 being the year in which the 1985 Year 12 students would have normally enrolled in Year 7). The retention rate thus derived is called an apparent retention rate because the method and calculation does not explicitly take account of net changes to the school population due to migration, nor of those students who spend more than one year in the same grade.

9.3 Apparent Retention Rates Secondary School Students 1985

Years	*Male*	*Female*
7–10	91.5	93.7
7–11	36.9	44.5
7–12	26.9	30.5

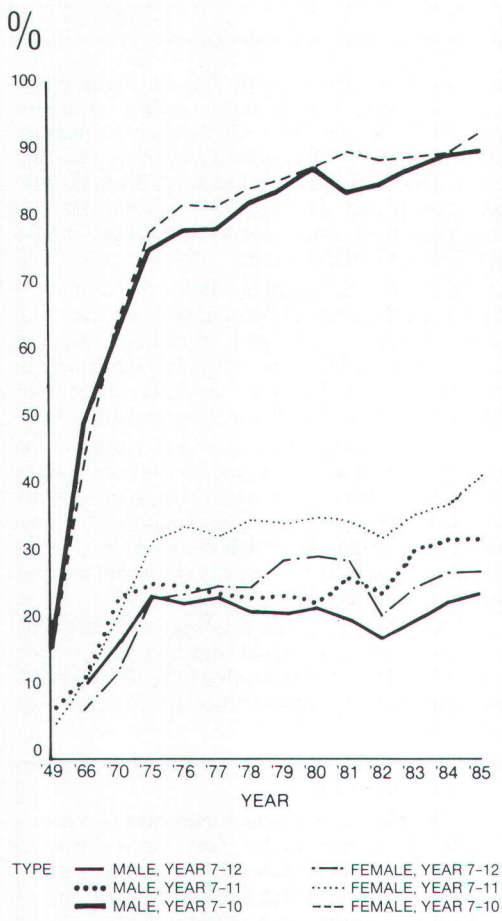
Apparent grade retention rates in government and non-government schools have shown differing trends in the last ten years. While non-government schools generally have much higher retention rates than government schools there has been a steady reduction in the gap between government and non-government schools for the Year 7 to 10 retention rate. This has no doubt been brought about by the difficult job market for early leavers in the 1980s.

In government schools the Year 7 to 12 rate has changed little from the 23.5 per cent in 1975 to the 25.5 per cent in 1985. The Year 7 to 11 rate has shown consistent growth from 28.6 per cent in 1975 to 36.6 per cent in 1985. The Year 7 to 10 rate however, reflects the poor employment situation with a rate of 76.8 per cent to 1975 increasing steadily to 91.2 per cent in 1985.

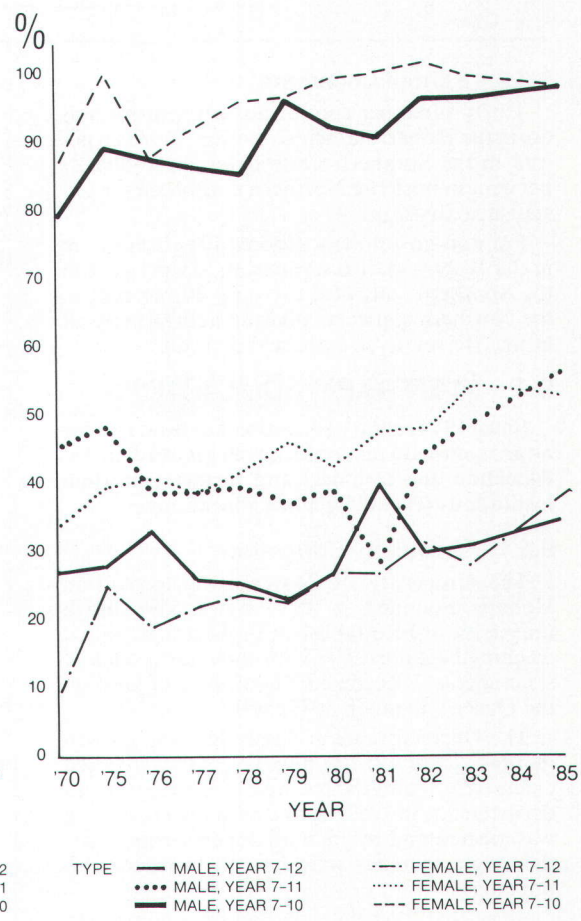
In non-government schools the Year 7 to 12 rate has increased from 33.4 per cent in 1975 to 42.0 per cent in 1985. The Year 7 to 11 rate has shown similar growth to that in government schools from 48.8 per cent in 1975 to 58.1 per cent in 1985. The Year 7 to 10 rate, while showing fluctuations over the period, has moved only marginally from 95.3 per cent in 1975 to 97.9 per cent in 1985.

9.4 Apparent Grade Retention Rates, Government and Non-Government Secondary Schools, Tasmania

Year	Year 7–12		Year 7–11		Year 7–10	
	Government	Non-Government	Government	Non-Government	Government	Non-Government
1975	23.5	33.4	28.6	48.8	76.8	95.3
1976	23.4	32.4	29.6	45.4	80.1	88.6
1977	24.4	30.9	28.2	44.3	80.1	90.3
1978	23.1	31.5	28.9	46.2	83.3	91.7
1979	24.8	29.9	28.9	47.2	85.0	96.6
1980	25.5	33.6	28.8	46.2	87.7	96.2
1981	24.3	39.1	30.4	44.0	86.7	95.9
1982	18.9	36.7	27.9	51.0	86.8	98.9
1983	22.3	35.6	33.1	55.7	88.3	97.9
1984	24.8	40.7	34.6	53.9	89.5	99.5
1985	25.5	42.0	36.6	58.1	91.2	97.9



Government Schools, 1949–1985



Non-government Schools, 1970–1985

Apparent Grade Retention Rates, Government and Non-Government Schools, Males and Females

9.5 Location of Schools, Tasmania, 1985

Statistical division	Government Schools					
	Primary	District high	High	Secondary college	Special	Total
Hobart	53	1	14	3	13	84
Southern	20	12	1	—	2	35
Northern	43	8	9	1	7	68
Mersey-Lyell	50	5	10	2	2	69
Total	166	26	34	6	24	256

Statistical division	Non-Government Schools			
	Primary	Secondary	Combined	Total
Hobart	14	3	11	28
Southern	3	—	1	4
Northern	13	1	7	21
Mersey-Lyell	11	1	5	17
Total	41	5	24	70

9.3.2 School Locations

Thirty three per cent of government schools are in the Hobart statistical division, fourteen per cent in the Southern statistical division and 27 per cent in both the Northern and Mersey-Lyell statistical divisions.

For non-government schools 40 per cent were in the Hobart statistical division, six per cent in the Southern statistical division, 30 per cent in the Northern statistical division and 24 per cent in the Mersey-Lyell statistical division.

9.4 TERTIARY EDUCATION

Since 1974 tertiary education has been free for award courses in universities, colleges of advanced education and technical and further education institutions (excluding adult education).

9.4.1 University Education

The University of Tasmania is located in Hobart. Founded in 1890 it was the fourth university to be established in Australia. When teaching began in 1893 with three lecturers and six students, it occupied 1.6 hectares of land on the Queen's Domain at Hobart.

The University site at Sandy Bay was chosen in 1944. Until 1957 temporary huts were used extensively, mainly by the rapidly growing science departments. In 1957 the first permanent building was erected and by 1973 all departments of the then eight faculties were housed in permanent buildings.

Since that date the new buildings completed are: a computer centre; a child care centre; a cosmic ray observatory; a sports and recreation centre; and the University Centre which consists of a complex of lecture theatres (which can be combined to form a single 800-seat hall), a fine arts gallery and a classics museum. A major extension to the Arts–Commerce–Education building has been completed as well as a further extension to the Union building. A drama studio was completed during 1981. Hytten Hall, a former student residence was converted to house the Centre for Education.

Since 1958, the main academic developments have been the establishment of two new faculties, Agricultural Science and Medicine, and the inclusion, in 1978, of the School of Pharmacy in the Faculty of Medicine and the School of Surveying in the Faculty of Engineering.

Normally students commencing courses at the University will have completed a full secondary education. There are quotas on new enrolments in most professional faculties such as Medicine and Engineering. Although there are provisions for mature-age entry the majority of students proceed straight from school.

The University offers full-time and part-time courses as well as external study. In 1985, 62 per cent of students were enrolled in full-time study. Bachelor degree courses comprised 75 per cent of total enrolments.

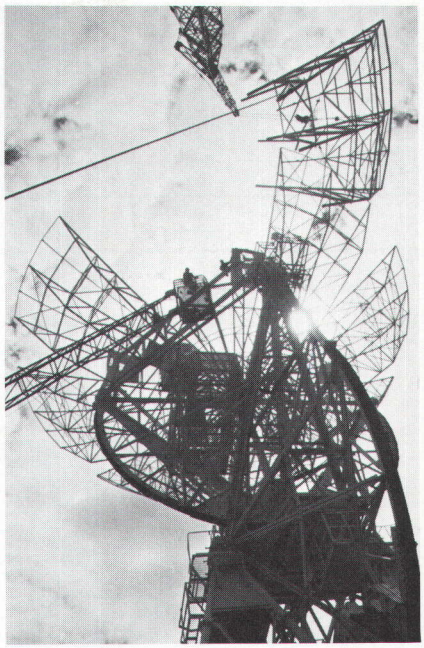
New Chancellor

The Chief Justice and Lieutenant Governor of Tasmania, Sir Guy Green, was appointed Chancellor of the University of Tasmania succeeding Sir Peter Lloyd. Sir Guy is an honours graduate of the University and has been a member of the Faculty of Law since 1974. He took up his appointment in August 1985.

9.6 University of Tasmania, Teaching and Research Staff (a)

	1984	*1985*
Teaching —		
Full-time —		
Professors	29	31
Associate professors, teachers	49	49
Senior lecturers, lecturers, teaching registrars	233.5	242.4
Assistant lecturers, demonstrators, tutors, teaching fellows	47.5	50.2
Total	359.0	375.6
Part-time —		
Senior lecturers, lecturers	5.9	8.8
Assistant lecturers, demonstrators, tutors, teaching fellows	17.0	18.4
Total	23.0	27.2
Research —		
Full-time	29	41
Part-time	—	—
Other —		
Full-time	469	497
Part-time	32	34

(*a*) Full-time equivalent units.



The Mt Pleasant Observatory, home of the southernmost major radio telescope in the world, was opened on 13 May 1986 by the Governor of Tasmania, Sir James Plimsoll.

Radio Telescope

In 1985 a 26 metre antenna valued in excess of $8 million was donated to the University. The equipment from the Orroral Valley Station was donated by NASA and the University is using $425,000 of its own funds to relocate the telescope at Cambridge in south-eastern Tasmania.

The antenna, a steerable solid surface parabolic reflector 26 metres in diameter on an x-y mount is reported to be in extremely good condition.

The head of the Physics Department at the University believes it is a splendid instrument for local use, capable of making a substantial contribution to present research projects and ideal for post-graduate training.

The antenna will form the heart of a new radio astronomy observatory for the University, complementing facilities already in operation and allowing expansion into important new areas of research.

It can be used on its own in a variety of astronomy programs of specific interest to members of the Physics department. Of particular importance is the study of Pulsars and other collapsed objects, a field in which the Physics department has gained international recognition. It will also provide a focus for research projects in electrical engineering in the areas of microwave receiver development, feed design, control and servo systems, digital signal processing and VLSI.

There are also projects of interest to the departments of Geology, Chemistry, and especially Surveying which have a major involvement in geodesy. This seeks to determine the absolute location of the antenna on the Earth's surface. Geodesy and geomechanics with a facility like this are capable of measuring relative movements of continents as small as a few centimetres a year.

However, it is the prospect of using the antenna with other instruments which is perhaps the most exciting. The Australian Government is presently building a new radio astronomy facility, the Australia Telescope, at Narrabri in New South Wales. This project, which is one of the Australian Bicentenary projects, involves constructing an array of antennas to be operated so as to achieve the performance of a very large telescope. It is now planned to operate the new Hobart facility as part of an extended Australia Telescope for several weeks of each year, synthesising a telescope aperture reaching from Hobart to Narrabri.

The instrument will be of enormous value to Australian science because it will be the most southern telescope of any reasonable size. It is expected to attract members of the international astronomy community to Hobart to make observations of the Southern sky not possible from elsewhere.

9.7 University of Tasmania Students

		1984	1985
Full-time		3 243	3 397
Part-time —	Internal	2 049	1 993
	External	96	57
Total		5 388	5 447
Total —	Males	3 009	3 047
	Females	2 379	2 400
Bachelor degree courses —			
Agricultural Science		54	51
Fine Art		183	211
Arts		938	938
Economics		157	183
Commerce		373	392
Education		606	573
Engineering		262	252
Surveying		46	45
Law		286	353
Music		79	78
Medicine		293	280
Pharmacy		52	62
Science		632	642
Total		3 961	4 060

New Development

Work has progressed on stage two of the $8 million Centre for the Arts project which is situated on Hobart's picturesque waterfront at Franklin Wharf.

The development brings the University's facilities 'downtown' as the Centre will be the headquarters of the Tasmanian School of Art and the Hobart base of the Tasmanian State Institute of Technology to house the off campus Studies Centre and the School of Environmental Design. Completion of the Centre is expected in the first half of 1986.

Extensions to the University's Clinical School are also well underway. They will accommodate a new library, three departments, Child Health, Psychiatry and Community Health and teaching space for tutorial rooms and a new lecture theatre. The additions will also include an area set aside for hospital services.

9.8 University of Tasmania: Degrees Conferred

Higher Degrees

Award gained	1980	1984	1985
Higher Doctor	1	1	2
Doctor of Philosophy	21	20	22
Master	8	74	63
Total	30	95	87

Bachelor Degrees

Course	1980		1984		1985	
	Honours	Pass	Honours	Pass	Honours	Pass
Agricultural Science	3	1	4	5	2	3
Arts	36	167	45	135	34	122
Commerce	1	20	2	48	—	46
Economics	2	21	6	27	7	36
Engineering	2	25	6	26	7	33
Surveying	—	10	3	12	3	6
Education	—	29	2	86	1	86
Special Education	—	2	—	1	—	3
Law	4	26	7	25	5	27
Medical Science	2	49	—	42	1	43
Medicine/Surgery	1	34	3	38	4	46
Pharmacy	—	15	—	16	1	10
Science	32	96	49	110	55	114
Arts/Law	1	4	2	7	—	6
Commerce/Law	—	—	1	3	—	—
Economics/Law	—	3	1	—	—	1
Science/Law	—	—	—	—	—	1
Fine Art	—	—	—	30	—	30
Music	—	—	—	18	—	14
Total	84	502	131	629	120	621

9.4.2 Advanced Education

The two institutions conducting advanced education courses in Tasmania are the Tasmanian State Institute of Technology and the Australian Maritime College.

The principal purpose of the two institutions is to provide tertiary education oriented towards practical training and industrial and social needs. The colleges aim to equip students so that immediately after graduation they may play an effective role in commerce, industry, the public sector and the arts. The colleges emphasise undergraduate teaching more than research.

The Tasmanian State Institute of Technology is a multi-disciplinary higher education college centred in the Launceston suburb of Newnham. As well as offering full-time and part-time courses at its home campus the institute has also developed a program of external and mixed mode studies to assist students State-wide who cannot attend classes in Launceston.

From 1984 the activities of the Institute have been carried out within four academic divisions:

- Administrative Studies formed by the School of Business.
- Arts and Science consisting of the Schools of Applied Science, General Studies, Nursing and Social Work.
- Environmental Design consisting of the Schools of Architecture, Planning and Landscape Architecture, Engineering and Art.
- Education, formed by the School of Teacher Education.

The College has also established a Centre for Legal Practice within the School of Business, a Centre for Drama and a Centre for Music within the School of General Studies, and a Centre for Physical Education within the School of Teacher Education.

9.10 Tasmanian State Institute of Technology, Teachers and Students

Teachers (a)	*1984*	*1985*
Full-time	146	141
Part-time	14	26
Total	160	167

Students	*1983*	*1984*
Full-time	1 124	1 144
Part-time —		
Internal	942	871
External	633	597
Total	2 699	2 612

(*a*) Full-time equivalent units.



Training vessel 'Wyuna'

9.9 Advanced Education Enrolments, Tasmania, 1984

Field of study	*Tasmanian State Institute of Technology*				*Australian Maritime College*
	Internal full-time	*Part-time*	*External*	*Total*	*Internal full-time*
Applied Science	99	38	5	142	147
Visual and Performing Arts	102	33	—	135	..
Architecture/Building	69	43	—	112	..
Commercial and Business Studies	131	151	392	674	..
Engineering	39	56	—	95	132
Social Sciences	54	9	—	63	..
Humanities	35	33	127	195	..
Paramedical Studies	57	35	44	136	..
Education	556	393	—	949	..
Total (*a*)	1 144	871	597	2 612	312

(*a*) Includes miscellaneous students

The Australian Maritime College was established by the Commonwealth Government through legislation in 1978 as a national educator of seafarers.

It was the first such establishment in Australia and remains the only one.

In 1979 the first intake of students began at Newnham, a northern suburb of Launceston in Tasmania and in the same year construction began of the first student residences.

The latest residential blocks were completed in 1984 at Newnham and at the college's other campus about 50 kilometres down river at Beauty Point.

The major academic campus is situated at Newnham and a seamanship and fisheries school is at Beauty Point where the college's vessels are berthed.

Both of the campuses and residential sections are sited alongside the Tamar River in picturesque surroundings.

9.4.3 Technical and Adult Education

Technical and adult education is provided at colleges at Hobart, Launceston, Devonport, Burnie and Queenstown and a number of separately provided but administratively linked adult education centres run by the Division of Technical and Further Education of the Education Department. Centres in Smithton, Scottsdale, Campbell Town, Oatlands and Huonville provide a more limited range of course offerings.

Technical Education

Technical courses cater for middle-level vocations between the trades and professions. These are designed in consultation with industry to meet the increasing needs of para-professional personnel in areas such as engineering, accounting, child-care and social welfare. On successful completion of a course a certificate is awarded by the Education Department.

Trade courses combine theoretical and practical aspects of the trade and are complimentary to employer training given to apprentices. Post-trade courses are available to extend the skills and knowledge of tradesmen.

Vocational courses provide for non-apprentice training and include fashion, clothing manufacture, supervision, commercial and secretarial studies.

Correspondence courses are administered through the Hobart Technical College's external studies service. These are intended for isolated students and others who are unable to attend regular classes.

Examinations are conducted by the Education Department in July and November each year. Papers are set and marked, or assessments carried out on a State-wide basis, except for the first and second year trade subjects, in which cases each college makes its own arrangements.

In 1984 total enrolments were 20 166 in technical courses.

All streams of study have shown increases in enrolment since 1981, when total enrolment was 18 313, except for Trade which has decreased by 16 per cent in the three years.

Adult Education

Hobart has four adult education centres: at the Domain, South Hobart, North Hobart and Rosny College as well as an inquiries and enrolment centre in the city. There are also centres and offices in Launceston, Devonport, Burnie, Queenstown, Oatlands and Campbell Town.

A wide variety of courses, ranging from one term to one year, is offered. A function of the Division is to initiate innovatory programs and respond to changes in community needs. Subject areas include basic education, business studies, foreign languages, arts and crafts, and music and dance.

In addition to a diverse summer school program attracting students from throughout Australia the division is active in the community arts area. Art exhibitions, music recitals and drama events often are arranged in association with other groups.

In 1984 total enrolments were 19 515 in adult education courses.

9.5 FUNDING

Under the federal system of government in Australia the six States and the Northern Territory are responsible for providing education services for their own residents.

In recent years the Commonwealth Government has provided the State governments with substantial financial assistance specifically, for schools, universities, colleges of advanced education and colleges of technical and further education. In addition, the Commonwealth Government has administered Australia-wide schemes of financial assistance for students for many years.

Primary and secondary education is free in government schools. Fees for the hire of textbooks and other school equipment, however, may be charged, particularly in secondary schools. The State Government provides financial assistance to parents under specified conditions for educational expenses. Assistance includes

various types of scholarships, bursaries, transport and boarding allowances, many of which are intended to assist low-income families.

The Commonwealth Government also provides a number of schemes of assistance to facilitate access to education. The Secondary Allowances Scheme (SAS), which assists families on lower incomes to maintain their children in Years 11 and 12, has been considerably expanded recently. Some non-government schools offer scholarships and bursaries to assist students.

The State Government provides the bulk of funds for government schools out of general revenue and makes per capita grants to non-government schools. About one-fifth of the total public funding of schools is now provided directly by the Commonwealth through the Commonwealth Schools Commission. In consultation with the States, the Commission advises the Commonwealth Government on the resource needs of both government and non-government schools.

At the June 1973 Premiers' Conference the States accepted the Commonwealth Government's offer to assume full financial responsibility for tertiary education from1 January 1974. The Commonwealth Government also announced in its 1973–74 Budget the decision to abolish tuition fees.

The Australian Constitution empowers the Commonwealth Government to make special-purpose grants to the States and to place conditions upon such grants. This power has been used to provide financial assistance to the States specifically for educational purposes. There are two national education commissions which advise the Commonwealth Government on the needs of educational institutions throughout Australia for the purposes of financial assistance; the Commonwealth Schools Commission, which was established in 1973, and the Commonwealth Tertiary Education Commission, which was established in 1977.

Generally, the Commissions are required to consult with State authorities (and, in the case of the Commonwealth Schools Commission, with the authorities conducting non-government schools) and such other persons, bodies and authorities as they think necessary before making recommendations to the Commonwealth Government on the amount of financial assistance required, both in general and for specific purposes, to meet the needs of each sector.

9.6 LIBRARIES

Tasmania is served by a network of different types of libraries, almost all of which have some computerised information and cataloguing services.

This entry into the computer age, facilitates the co-operative sharing of information in a way that has not been possible in the past. It also allows greater dissemination of information to the public.

9.6.1 The State Library

The State Library of Tasmania was created in 1943. The purpose of the library is to provide a comprehensive library and information service to all sections of the Tasmanian community from both its lending and reference departments. The State library was one of the first public libraries in Australia to provide on-line information access as a normal part of its reference services.

As well as working closely with other libraries in Tasmania, the State Library has extensive links with libraries on the Australian mainland and overseas.

The State library system encompasses many different services including 'outreach' facilities such as Bookmobile and Hear-a-book.

Regional Services are provided by the Hobart lending library and six regional library systems, each of which is responsible for the management of all public library services within the municipalities forming its particular region.

9.6.2 Special Libraries

These include Commonwealth and State Government department libraries such as the Department of Social Security library, the Australian Bureau of Statistics library, the Attorney General's library, the State Offices library, the State Parliamentary library and the CSIRO.

The HEC and Telecom as well as many private companies such as E.Z. and ANM also provide a comprehensive library service for their staff especially in the area of research.

Special libraries vary greatly in quality, size and in the services they provide. Many of the smaller special libraries supplement the resources of the larger libraries and most actively encourage the public, as well as their own staff, to use their services.

9.6.3 Academic Libraries

The University of Tasmania maintains one of the biggest libraries in the State. Apart from the central University library most departments provide a smaller, more specialised branch library for the use of their students and staff.

The Tasmanian State Institute of Technology is now located in Launceston and its library is the only one of its kind in the north of the State.

9.6.4 Education Libraries

A large number of libraries are maintained by the Education Department throughout its primary and secondary schools.

Other educational libraries include: the libraries of the various administrative sections of the Education Department, The Curriculum Centre, The Southern Teachers Centre Library, libraries within Technical and Further education and the libraries of Independent Schools.

9.7 MUSEUMS

9.7.1 Tasmanian Museum and Art Gallery

The Tasmanian Museum and Art Gallery has its origins in early scientific groups formed in Hobart Town in the 1820s and 1830s. In 1853 the Royal Society of Tasmania established a museum which was later vested in a Government Board of Trustees in 1885. The first building on the present site, on the corner of Argyle and Macquarie Streets, was designed by the city's best-known colonial architect, Henry Hunter (1832–1892), and completed in 1863. Later additions were made in 1889, 1901, 1966 and 1979. The income of the Museum is provided mainly by an annual grant from the State Government.

The Tasmanian Museum and Art Gallery houses collections in the fields of fine and applied art, zoology, geology, botany, history, anthropology and applied science. It is an integrated institution concerned with the whole range of natural and human heritage with particular emphasis on Tasmanian exhibits.

The Museum's traditional function, and still the major part of its operation today, is to collect, conserve, study and display items of cultural or scientific value to the community. It now performs a wide variety of additional roles, which include a continuing program of travelling exhibitions and a school education service which utilises the *Musbus*, a van specially equipped for transporting museum displays.

Curators, in addition to working on collections and research on related subjects, handle public inquiries which touch on their fields. Display staff are responsible for installing museum displays, publicity and museum publications. The Museum also employs experts in art conservation and taxidermy. The Tasmanian Herbarium, currently housed in the Botany Department of the University of Tasmania, is part of the Museum.

Collections

Art: The Gallery has a comprehensive collection of Australian paintings, drawings, prints and sculpture from the early nineteenth century to the present day. The collection places particular emphasis on art of the colonial period in Tasmania, with large groups of paintings by Glover, Duterrau, Bull, Gould, Wainewright, de Wesselow, T.E. Chapman, Louisa Anne Meredith, Skinner Prout and others. There are also some important European works of the nineteenth and early twentieth centuries by Beechey, Bouguereau, Poynter, Rodin, Epstein, Sickert and Gilman. The collection of eighteenth and nineteenth century English watercolours is one of the finest in Australia. The Gallery also collects nineteenth and twentieth century prints and photographs.

The applied arts collection includes nineteenth century European and Australian costumes, silver, china and glass and a collection of contemporary Australian ceramics and works in metals and fibres. Asian material includes a collection of jade carvings and Japanese netsuke.

History: The presentation of colonial history is highlighted by articles such as Andrew Bent's press of c. 1825 and Lady Franklin's sedan chair (c. 1840), and by a comprehensive maritime (including whaling) collection. A photograph collection covers the period from the mid-1850s to the present day. Coins and medals, including a collection of Greek, Roman and early British coins, and early time-pieces are other notable historical collections.



Coin collection, Tasmanian Museum and Art Gallery

Anthropology: Tasmanian Aboriginal culture is represented by tools and artifacts, and rock carvings from Mount Cameron West in north-western Tasmania. There is a Melanesian collection assembled earlier this century, and representative Australian material.

Zoology: Present displays of vertebrate animals feature Tasmania's land mammals and birds, together with reptiles and marine life. Tasmanian invertebrates on show include insects, spiders, crabs, mollusc shells and sea stars. An extensive reference collection of Tasmanian animals is maintained for scientific study. The Museum safeguards many type specimens (original examples on which description of new species have been based).

Geology: Rocks, minerals and fossils of predominantly Tasmanian origin are on display. Notable exhibits include the skeletons of *Wynyardia*, the 20-million-year-old marsupial from Wynyard, and *Zygomaturus*, a giant marsupial, and the world famous mineral crocoite from Tasmania's west coast. The reference collection houses rocks and minerals, including the Petterd Mineral Collection, and fossils, which include many type specimens, mostly from Tasmania.

Botany: The Herbarium is at present housed at the University of Tasmania. It includes specimens collected early in Tasmania's history by R.C. Gunn, many of which are type specimens. Other early collectors represented include Archer, Meredith, Milligan, Stuart and Spicer. The Herbarium's current holdings number about 90 000 specimens of Tasmanian plants.

9.7.2 Queen Victoria Museum and Art Gallery

The Queen Victoria Museum and Art Gallery was established by the Tasmanian Government in 1891. Since 1895 it has been vested in the Launceston Corporation and has received an annual State Government grant. It serves the northern half of Tasmania and its public galleries contain collections and exhibits of special relevance to the natural and cultural environment of Tasmania. Educational, research and information services are provided.

The Museum operates a Zeiss Medium-type Planetarium seating 66 people in a comfortable, air-conditioned auditorium beneath a celestial dome eight metres in diameter. Various sessions are conducted for the general public and for school groups. It has its own air-conditioned theatrette seating 166 people and a reference library of scientific and historical books and journals. The arms and armour collection is one of the finest in Australia and there are also extensive collections of Tasmanian animals, plants, artifacts, geological specimens, historical material, craft, decorative art and fine art.

The education office of the Queen Victoria Museum and Art Gallery provides a service to schools throughout northern Tasmania, lending a wide range of items for teaching aids and assisting with teaching programs in the public galleries. It also operates a caravan fitted out to display Museum materials which is stationed for short periods at various towns in northern and north-western Tasmania. In addition, with the assistance of the Australian National Railway Commission, it also operates a railcar fitted out to display Museum materials which will be stationed at various towns in the north and north-west of the State which are serviced by rail. Though primarily designed as teaching aids for district schools, they are also open to the general public.

The Museum's main annexe is Macquarie House in Launceston's Civic Square. The displays within Macquarie House centre on Launceston's history, through the eyes of its architecture. As well, the two annexes at Launceston's Cataract Gorge, the Band Rotunda and the Gorge Interpretation Centre, have displays emphasising the historic, recreational and cultural importance of the Gorge to the Launceston community.

9.8 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Schools, Tasmania (4200.6), annual.

Tertiary Education, Tasmania (4205.6), annual.

ABS Publications Produced by the Canberra Office:

National Schools Statistics Collection, Australia (4221.0), annual.

Tertiary Education, Australia (4218.0), annual.

Other Publications:

Phillips, Derek, *Making More Adequate Provision, State Education in Tasmania, 1839–1985*, Tasmanian Government Printer, Hobart, 1985.

Education Department, *Annual Report*, Government Printer, Hobart.

Chapter 10

HEALTH

		Page No.
10.1	**Morbidity**	169
10.2	**Mortality**	170
10.2.1	Causes of Death	171
10.3	**Caring for the Sick**	173
10.3.1	Hospitals	174
10.3.2	Home Nursing	175
10.4	**Health Maintenance**	176
10.4.1	Child Health	176
10.4.2	Dental Health	179
10.4.3	Health Education	179
10.5	**Mental Health**	180
10.5.1	Adult Psychiatric Services	180
10.5.2	Child and Adolescent Psychiatric Services	180
10.5.3	Intellectual Handicap Services	181
10.5.4	Alcohol and Drug Dependency Services	181
10.6	**References**	181

Chapter 10

HEALTH

The desire to attain good health is universal. Throughout history man has always endeavoured to protect his health, at first by devising techniques and selecting special individuals to ward off 'evil spirits'. Observation and experience gradually identified ways for keeping well. Laws were developed to govern health and, as large communities developed, methods of sanitation were devised. But it was not until the 1800s with the discovery that germs caused disease, that significant advances in man's understanding of, and ability to successfully treat, illness were made.

Yet, for all the knowledge and resources now directed towards attaining good health, disease, injury and illness are still part of everyday life, present everywhere and touching all of us.

10.1 MORBIDITY

In a two week period during 1983, just under two thirds of Tasmanians took some positive action in relation to their health. This is the finding of a national survey of people conducted by the Australian Bureau of Statistics. The survey found that 63 per cent of Tasmanians had a stay in hospital, used a medication, had a consultation with a medical doctor, dentist or other health professional, had either a day off work or school or experienced a day of reduced activity due to health reasons. This compared with 71 per cent for Australia as a whole.

Males indicated having more injury and were more likely to take time off work for health reasons than were females; overall males took action relating to their health less frequently than did females. They also reported less illness than did females.

The survey found that just over half the population had recently experienced an illness condition. For both males and females the most prominent illness condition reported was associated with the respiratory system.

The highest rate occurred among children under the age of 5 years (11 per cent) who experienced acute nasopharyngitis (the common cold). The corresponding figure for children aged 5–14 years was also a relatively high 7.2 per cent. The rate recorded for individuals in other age groups was about half this figure.

10.1 Proportion of Tasmanians with an Illness Condition, 1983, (%)

Condition	*Males*	*Females*	*Persons*
Endocrine nutritional and metabolic diseases	2.2	2.3	2.2
Mental disorders	1.7	4.2	2.9
Nervous system and sense organs	3.5	4.1	3.8
Circulatory system	8.3	11.2	9.8
Respiratory system	15.0	14.8	14.9
Digestive system	7.0	8.7	7.8
Genito-urinary system	*	3.6	2.1
Skin and subcutaneous tissue	6.3	6.6	6.4
Musculoskeletal system	6.6	10.2	8.4
Other specified conditions	4.8	4.6	4.7
Symptoms and ill-defined conditions	10.5	19.3	14.9
All conditions	47.4	56.5	52.0

Equally high was the incidence of symptoms of illness and ill-defined conditions (14.9 per cent). This was particularly prevalent among people aged 65 years and over who experienced insomnia (14.5 per cent). A high rate was also recorded for individuals in the 25–64 years age group suffering from headache (due to unspecified or trivial causes). Females tended to experience more headaches (10.4 per cent) than males (5 per cent).

Conditions associated with the respiratory system, and symptoms and ill-defined complaints were the two most frequent cause of illness among both males and females. The third most common source of complaint was associated

with the circulatory system with females reporting a substantially higher rate of illness than males (11.2 per cent and 8.3 per cent). Hypertension was prominent among people 65 years and over (27.9 per cent), with females experiencing a higher rate than males. High blood pressure among people aged 45–64 years (15.6 per cent), and heart disease among the 65 and over age group (16 per cent) were other high rates of conditions associated with the circulatory system.

Relative to males, females experienced a higher rate of illness associated with the musculoskeletal system, particularly in regard to arthritis. The higher rates of persons experiencing arthritis were found in the 65 years and over age group, and to a lesser degree, in the 45–64 year age group.

The survey showed that most of those who reported an illness condition, experienced one illness only. However, a higher proportion of females than males reported having two or more illness conditions.

10.2 Proportion of Males and Females Reporting Illness Condition, Tasmania, 1983

	Number of different illness conditions			
	1	*2*	*3 or more*	*Total*
Males (% of total males)	33.0	9.0	4.5	47.4
Females (% of total females)	33.1	14.2	9.2	56.5
Total (% of total pop.)	33.1	12.0	6.9	52.0

Taking Medications

Almost 60 per cent of Tasmanians reported taking one or more medications in the two weeks of the survey reference period. This compares with just over 65 per cent of Australians. Again females outnumbered males, and with respect to almost all types of medications, but particularly in taking pain relievers, heart, blood pressure and fluid tablets, sleeping pills and vitamin or mineral supplements. The survey showed that pain relievers were the most frequently taken form of medication, closely followed by vitamins and mineral supplements. Other relatively frequently taken medications were skin medications, and heart, blood pressure or fluid tablets.

10.3 Frequency of Tasmanians Taking Medications, 1983 (%)

Medication	*Males*	*Females*	*Persons*
Pain relievers	19.8	30.9	25.4
Vitamins or mineral supplements	17.8	23.6	20.7
Heart, blood pressure or fluid tablets	7.6	11.1	9.4
Skin medications (*a*)	6.8	6.5	6.7
Cough medicines	5.8	6.4	6.1
Sleeping pills	2.2	4.9	3.6
Tranquillisers	2.1	4.2	3.1
Birth control pills (*b*)	—	30.3	30.3 (*c*)
Other medications	9.2	8.9	9.0
Total persons taking medications (*d*)	48.8	66.1	57.5

(*a*) Excludes cosmetic creams and preparations.
(*b*) Includes only females aged 18 to 50 years.
(*c*) Per cent of females aged 18–50.
(*d*) Each person may have taken more than one type of medication and, therefore, components do not add to totals.

Medical Consultations

Over 75 per cent of Tasmanians had consulted a medical practitioner at least once in the 12 months prior to the survey. In all age groups except the 5–14 year olds, the proportion consulting a doctor was higher for females than for males.

10.4 Proportion of Tasmanians Reporting Doctor Consultations in Twelve Month Period, 1983 (%)

Age group (years)	*Males*	*Females*	*Persons*
Under 5	81.2	93.9	87.4
5–14	71.7	67.2	69.0
15–24	57.5	84.0	70.8
25–44	66.9	85.1	76.0
45–64	73.2	78.6	75.9
65 and over	86.3	93.1	90.1
All ages	70.1	82.2	76.2

10.2 MORTALITY

In 1984 more resident Tasmanians died than in any previous year. A total of 3596 people died, 1971 males and 1625 females, which was an increase of 8.3 per cent on the number of deaths registered in 1983. It was also the highest rate of deaths (number per 1000 of mean population) since 1976.

10.5 Deaths in Tasmania, 1984

Age group (years)	*Males*	*Females*	*Persons*
0–4	58	40	98
5–14	13	5	18
15–24	51	15	66
25–44	116	53	169
45–54	124	77	201
55–64	349	190	539
65–74	599	334	933
75 and over	661	910	1571
Total	1971	1625	3596

Teacher training in Tasmania is provided by the Tasmanian State Institute of Technology in Launceston.

The Australian Maritime College in Northern Tasmania is Australia's national educator of seafarers. The photo shows the College's three main vessels, the Stephen Brown, Bluefin and the Wyuna moored at Beauty Point.



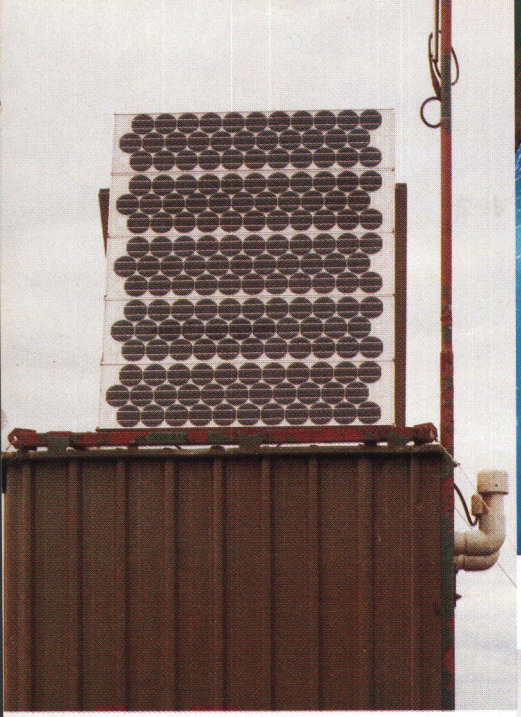
In 1966 Tasmania became the first Australian State to develop a School of Dental Therapy.
(Government Stills Photographic Section)



Home nursing and home care services care for over 6 000 patients in their own homes.
(Government Stills Photographic Section)



St John's Hospital, Hobart.

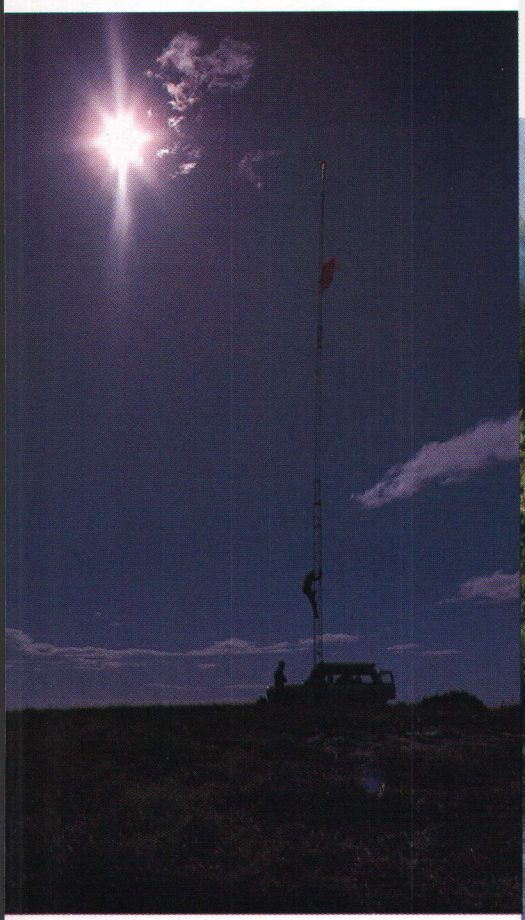


A solar collector is used to power the radio base station at Mt. Huxley. (Hydro-Electric Commission)

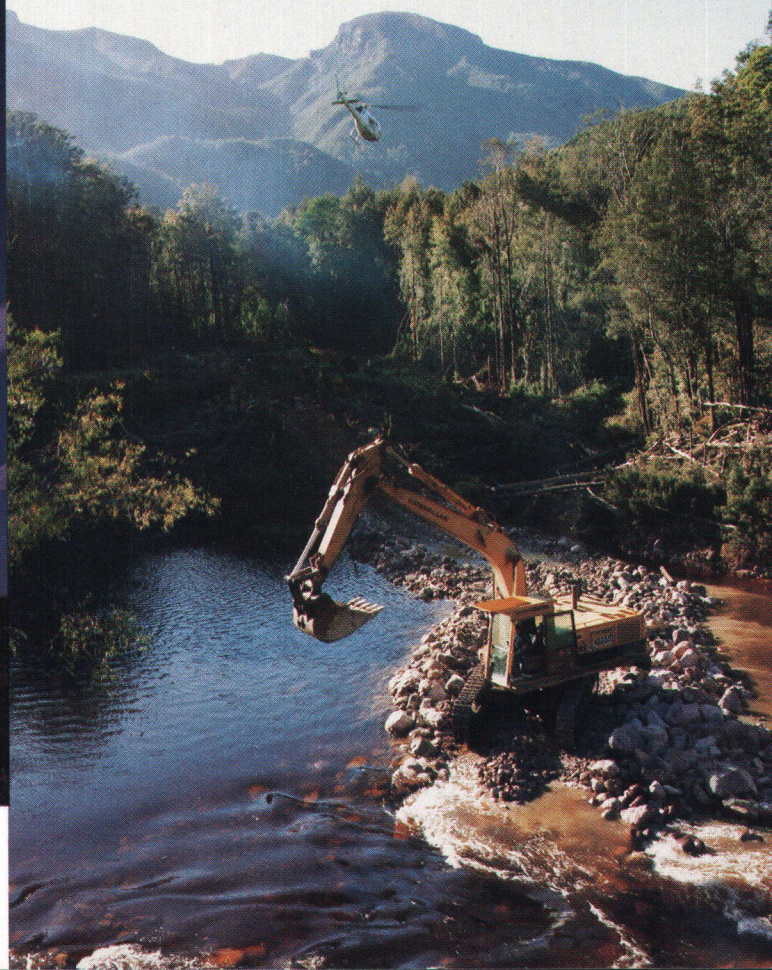


Drilling for oil offshore from Burnie. (Fred Kohl, Mercury)

Construction activity near the site of the King River Power Station. (Hydro-Electric Commission)



Erecting wind monitoring equipment in the North East of the State. (Hydro-Electric Commission)





Coal from the Fingal Valley mines is transported by train to bulk consumers such as the newsprint mill at Boyer. (Michael Dix)

Up until age 75 male deaths outnumbered female deaths. However, the reversal in the 75 and over age group, occurred only because of the higher number of females of that age in the population; in all age groups the death rate of males was higher than for females. And for most age groups the male rate is almost twice the female rate. Only the 0–4 age group provides a rate for females somewhere close to the male rate, and then only among children aged between one and four; the death rate among infants, children aged less than one year, is considerably higher for males than for females.

10.6 Age-Specific Death Rates, Tasmania, 1984

Age group (years)	*Males*	*Females*
0–4	3.25	2.33
5–14	0.35	0.14
15–24	1.34	0.40
25–44	1.82	0.85
45–54	5.91	3.80
55–64	17.79	9.40
65–74	45.24	21.15
75 and over	106.12	86.08
All ages	9.08	7.38

Infant Deaths

Just under two thirds of all infant deaths are males, and just over half occur at less than four weeks of age.

10.7 Infant Deaths, Tasmania, 1984

Age	*Males*		*Females*	
	No.	*Rate (a)*	*No.*	*Rate (a)*
Under 1 day	20	5.6	6	1.7
1 day and under 1 week	6	1.7	5	1.4
1 week and under 4 weeks	5	1.4	3	0.9
4 weeks and under 12 months	20	5.6	16	4.5
Total	51	14.3	30	8.5

(*a*) Deaths per 1000 live births.

10.2.1 Causes of Death

In 1984, five causes accounted for over 72 per cent of all deaths registered. These were heart disease (28.9 per cent), cancer (23.4 per cent), strokes (10.7 per cent), bronchitis, emphysema and asthma (5.1 per cent), accidents, suicides, poisonings and violence (4.6 per cent).

10.8 Principal Causes of Death, Tasmania, 1984

Cause	*Proportion of all deaths*	*Number*	
		Males	*Females*
Ischaemic heart disease	28.9	612	428
Malignant neoplasm	23.4	481	361
Cerebrovascular diseases	10.7	150	235
Bronchitis, emphasema and asthma	5.1	137	48
Accidents, suicides and violence	4.6	116	48

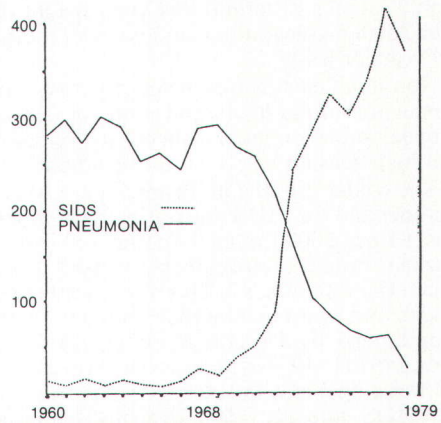
Cot Deaths

Sudden Infant Death Syndrome, variously called Cot Death, Crib Death or SIDS, is the most common cause of death in infants between one week and one year of life in many Western countries. The syndrome actually accounts for more deaths than all other causes combined during this period.

10.9 Main Causes of Death at Ages Under 1 Year, Tasmania, 1984

Cause	*Male*	*Female*
Congenital anomalies	14	13
Conditions originating in the perinatal period	20	5
'Cot death'	15	11
All causes	51	33

Defined as 'the sudden death of any infant or young child which is unexpected by history and in which a thorough post-mortem examination fails to demonstrate an adequate cause of death' (Beckwith 1970), SIDS was not commonly recognised before the 1970s. Until 1979, most cases of sudden infant death, even those coming to autopsy, were labelled as pneumonia, broncho-pneumonia or interstitial pneumonia.



Infant Deaths: Diagnosis of SIDS and Pneumonia, Australia.

The graph comparing the number of diagnoses of SIDS and pneumonia in infants under twelve months of age in Australia between 1960 and 1979 suggests that those cases diagnosed as pneumonia may in actual fact be considered as SIDS.

Since most cot deaths occur during the infants' sleeping hours, the bulk of research has been aimed at explaining the apparent link between sleep and SIDS. It has been suggested that this could be due to the depression of many protective respiratory reflexes during sleep. In this state vulnerability to asphyxia is increased because the lung volume and oxygen gas stores are reduced, intercostal muscles are inhibited and breathing is sustained primarily by the diaphragm. Thus, reflex arousal from sleep in response to asphyxia is delayed.

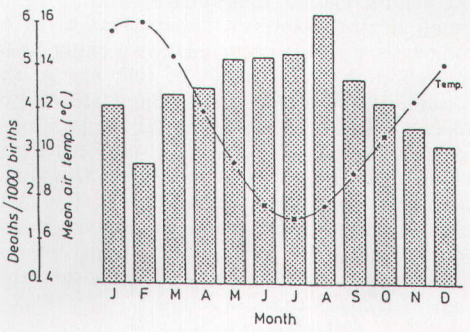
This alone, however, does not explain SIDS as evidence suggests there may be subtle neuropathological abnormalities and possible biochemical aberrations. Although the apnoea theory is accepted by a large number of research groups around the world and has substantial supportive data, proof of the hypothesis is still lacking.

A study of 213 infants dying of SIDS in Tasmania during the years 1975 to 1981 has indicated that the incidence for the seven years was 4.4 per 1 000 live births compared with a national average of 1.6 per 1 000. Other world figures range from a low of 0.49 in Sweden to a high of 4.37 in parts of England.

The peak incidence of death was in the 3 month age group with 24.9 per cent of deaths occurring in this group. There would also appear to be a preponderance of male deaths from SIDS, the male to female ratio being 142:100 whereas the male to female ratio for births over this period in Tasmania was 106:100. Other significant factors were pre-term delivery (less than 37 weeks gestation) low birth weight (less than 2500gm) illegitimacy and younger mothers (24 years or less).

Non significant factors included parity, urban versus non-urban habitation mode of delivery, surgical induction and augmentation of labour, and hypertension before or during labour.

The colder months in Tasmania are May to October and the SIDS rate during these months was 5.1 per 1 000 live births compared with the warmer months, November to April during which the rate was 3.7. This variation between colder and warmer months is similar to that propounded by Deacon *et al* (1979) for the period 1973 to 1977 in Melbourne. Also comparing these figures with those of South Australia the SIDS rate per 1 000 live births are very similar in the months when the mean daily temperature is 10°–16°C; 3.8 per 1 000 in



Cases of SIDS, Tasmania 1975–81

Tasmania and 3.2 in South Australia. In the remaining colder months in Tasmania it is 5.0 per 1 000 live births and 1.4 in the warmer months in South Australia.

The contribution of temperature to SIDS is represented in the comparison between mean monthly temperature in Tasmania and the monthly incidence of SIDS. As the temperature falls the cot death rate rises. Furthermore, the regions of Tasmania which have a higher incidence of SIDS, the southern and western areas, average 1°C colder than the remainder.

Mild respiratory tract infection accompanies death in 40–75 per cent of SIDS cases (Beckwith 1970). This suggests that a lowering of ambient temperature in combination with mild hypoxia from partial upper airway obstruction, infections, or from some other cause may disrupt the sleep pattern causing a reduction of time for active sleep, placing the infant at greater risk. Moreover an increased incidence of infections in winter and a possible association of infections with SIDS has been previously recognised (Naeye *et al*, 1976).

Several disproven theories still result in anxiety and parental recrimination. The idea that neglect, or smothering by inappropriate bed clothing can cause SIDS still results in unnecessary parental grief even though this has been negated. The incidence of SIDS is not linked to breast or bottle feeding, allergies or house dust. Vitamin C levels have been measured in SIDS infants and found to be normal.

The final physiological mechanisms for SIDS are still speculative. However, the syndrome appears to result from failure to arouse under adverse respiratory circumstances, and to be associated with predisposing factors. It is suggested that cold, hypoxia and respiratory infection play a major role in the onset of SIDS.

Acknowledgement: This article is based primarily on an unpublished paper by Neville M. Newman, Department of Obstetrics and Gynaecology, University of Tasmania.

10.10 Sudden Infant Death Syndrome (SIDS) Rates (per 1 000 live births), Australia, 1975–1981

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*Total*
1975	0.8	1.5	1.4	1.9	1.6	3.6	0.9	3.4	1.4
1976	0.9	1.1	1.0	1.5	2.0	3.6	—	3.3	1.3
1977	1.1	1.4	1.1	1.5	2.3	5.5	1.5	3.9	1.5
1978	1.6	1.9	1.7	2.9	1.5	4.1	0.4	1.6	1.8
1979	1.4	2.2	1.1	1.9	1.8	4.5	0.7	1.3	1.7
1980	1.4	1.9	1.8	1.8	1.7	4.0	1.5	1.8	2.0
1981	1.7	1.8	1.6	1.8	1.9	4.6	1.6	2.2	1.8
Mean	1.3	1.7	1.4	1.9	1.8	4.4	0.9	2.5	1.6

Deaths from Age 1

Most deaths among people up to age 34 result from the first two categories, motor vehicle traffic accidents and, suicide and self-inflected injuries. These two causes account for about 50 per cent of all male deaths, and about 30 per cent of all female deaths in the age group 1–34 years.

10.11 Main Causes of Death at Selected Ages (Number), Tasmania, 1984

Cause	*Male*	*Female*
1–34 Age group		
Motor vehicle traffic accidents	41	8
Suicide and self-inflicted injuries	18	7
Other accidents and violence	25	8
Other causes	31	25
All causes	115	48
35–44 Age group		
Accidents and violence	22	2
Diseases of the circulatory system including heart disease	24	8
Neoplasm	17	17
Other causes	9	5
All causes	72	32
45–64 Age group		
Diseases of the circulatory system including heart disease	367	160
Neoplasms	165	116
Accidents and violence	33	13
Diseases of the respiratory system	21	16
Other causes	53	27
All causes	473	267
65 and over age group		
Diseases of the circulatory system including heart disease	1 201	1 222
Neoplasms	290	219
Diseases of the respiratory system	140	67
Accidents and violence	22	30
Other causes	113	162
All causes	1 260	1 244

Around the ages 35–40 for both males and females a change in the pattern of deaths takes place. For males, diseases of the circulatory system, heart disease and strokes, emerge as the main causes of death for age groups 35 years and upwards. Cancers also become increasingly significant. Two broad groups, malignant neoplasms of the digestive organs and peritoneum (which include 'stomach' and 'bowel' cancers) and lung cancer account for most cancer deaths. For ages 65 and over, diseases associated with the respiratory system are also significant.

While the predominant causes of death among women are similar, the pattern differs in that initially cancers are more important than diseases associated with the circulatory system. About 12 per cent of female deaths in the 55–64 age group are from breast cancer. From about the mid-60 ages, diseases of the circulatory system (heart and cerebrovascular diseases) become the predominant causes of death. Diseases of the respiratory system account for fewer female than male deaths.

10.3 CARING FOR THE SICK

The treatment of illness is the major function of the health care system. In Australia the most visible, and the most expensive, part of the system is the hospital. But although some form of institution for the care of the sick has probably always existed, hospitals in their current form are a relatively modern concept.

Originally hospitals were established for sick or weary travellers and for the poor, the blind and the crippled. Usually operated by religious orders, hospitals served as institutions to care for persons too poor or too sick to be treated at home. Even up to the 1700s they were still operated as charity institutions, with the well-to-do being treated in their own homes.

It wasn't until the 1800s, when hospitals underwent considerable improvement in cleanliness, that the trend of caring for patients in hospitals instead of in their own homes began.

Perhaps ironically the escalating costs of treating patients in modern hospitals has forced a new move back to home based nursing care. Increasingly, efforts are being made to significantly reduce the length of time patients are kept in hospitals. More and more admissions are being delayed and patients are being discharged early to be cared for by teams of Home Nurses and people providing 'home help' or 'handyman' services.

10.3.1 Hospitals

In 1983 an estimated 12 per cent of Tasmanians had had one or more episodes in a hospital during the previous twelve months. For most, the stay in hospital was of a relatively short duration; for 70 per cent, one week or less. Less than four per cent of the population was hospitalised for more than a month, and only 20 per cent underwent more than one period in hospital during the 12 month period.

In most age groups, more females than males had been hospitalised; only among infants and children up to 14 years of age were females outnumbered by males.

Tasmania has 28 hospitals of which six are operated privately. In Hobart, the Medical Benefits owns and operates St Johns Hospital and Australian Hospital Care Pty Ltd own St Helen's Hospital. Both provide medical and surgical facilities. The Roman Catholic Church own Calvary Hospital in Hobart and St Vincents in Launceston. St Lukes Health Insurance own and operate St Lukes Hospital in Launceston. The sixth is a psychiatric hospital, the Hobart Clinic.

At the end of June 1985, a total of 2532 approved beds were being provided in Tasmania; 6.0 beds for every 1 000 people, a rate equal to Western Australia but below the 6.8 for Queensland and 6.4 in South Australia.

St Johns Hospital — A Brief History

In 1901 George Stanton Crouch, Joshua Tavell Soundy, William Lord, Charles Duncan Hayward, Harry Kingston Fysh, and Albert Edward Richardson purchased from the Estate of John Fisher the buildings, on approximately 3 acres of land, in which the Hobart Homeopathic Hospital had earlier been established.

In 1930 the Board of Management of the Hobart Homeopathic Hospital was faced with the prospect of closing it's hospital through lack of support. The Board negotiated with the Church of England, and it was agreed that the Church would pay off the current debts and then take over the assets and liabilities without further consideration.

On April 20, 1931, the hospital was officially opened by the Bishop of Tasmania, Bishop Hay, and it became known as St John's Hospital (Church of England) incorporating the Hobart Homeopathic Hospital. Fund-raising auxiliaries were formed in Hobart parishes to raise the necessary finance to pay off the debts and furnish the wards of the twenty-bed hospital.

A new wing was completed in 1935, and in 1939 a lift was installed and a further eight single rooms were added. By 1941 the hospital had sixty-four beds.

In 1942, as an emergency wartime measure, and with the concurrence of the Nurses' Registration Board, St John's decided to accept trainees for a three year training period after the completion of a satisfactory probationary period. It was the beginning of the hospital's record as a training school.

By 1949 a new kitchen block and a second storey for the nurses' home had been constructed, and in 1953 new accommodation for an X-ray plant and a room for pathological work were added. Further extensions to the hospital by 1959 increased the total number of beds by fourteen to eighty-two. The Maud and Robert Snowden Hay Memorial Chapel was also completed and furnished.

A disastrous fire necessitated the construction of a new theatre complex of three theatres, a recovery ward, and a central sterilizing department; it was opened on May 18, 1969.

During 1972–73 all wards in the hospital were extensively renovated. On December 12, 1972 a new pathology block was completed, and the old pathology block was renovated to provide sitting rooms and toilet facilities for staff.

In 1976 tenders were called for extensions that included sixteen private 'motel-type' single rooms, a new reception and administration area, and a basement area for lease. The work was completed in early 1978.

The extension is attached to the original stone building standing on this site in 1824 and then named 'Wellington Grange'. On account of this historical link and because Mt. Wellington stands sentinel over Hobart it was appropriate that the extension be named 'Wellington Wing'.

More recent improvements have included a new traffic entrance landscaped with lawn and shrubs.

On August 17, 1984 the hospital was purchased by the MBF.

10.12 Approved Hospital Beds, Tasmania, 30 June 1985

Beds in —	
Public hospitals	2016
Private hospitals —	
Category 1	142
Category 2	362
Category 3	12
Total private hospitals	516
Total hospitals	2532

Four general hospitals, 14 district hospitals, 11 hospital annexes and district nursing centres with bed accommodation, six centres without accommodation, one mental hospital, two maternity hospitals and three nursing homes for the aged are provided by the State. A total of 2016 public hospital beds are available.

10.13 Public Hospital Beds, Tasmania, 1985

General Hospitals —	
Royal Hobart	497
Launceston General	386
Mersey General	187
North-Western General	236
Maternity Hospitals —	
Queen Alexandra	68
Queen Victoria	117
District Hospitals —	
Huon	48
Beaconsfield	26
Campbell Town	18
King Island	24
New Norfolk	42
North-Eastern Soldiers' Memorial	49
Ouse	10
Roseberry	15
Smithton	40
St Helens	9
St Marys	19
Toosey	33
Ulverstone	48
West Coast	43
District Nursing Centres	58
Miscellaneous	43
Total	2016

The four general hospitals, the Royal Hobart, Launceston General, Mersey General (at Latrobe and Devonport) and the North-Western General (with divisions at Burnie and Wynyard) provide all facilities. Specialist treatment is available in obstetrics, gynaecology, orthopaedics, uro-genital surgery, plastic and reconstructional surgery, neuro-surgery and neurology, radiology, pathology, radiotherapy, psychiatry and ophthalmology. Skin diseases and venereal diseases are also treated and clinics operate in thoracic medicine and surgery. An emergency obstetric service, with specialists based in Hobart and Launceston, provides a free service to the smaller public hospitals, district nursing hospitals and district medical officers outside Hobart and Launceston.

During 1984–85 a total of 60 288 in-patients were treated in the State's hospitals.

10.14 In-patients Treated Tasmanian Public Hospitals, 1984–85

Hospital	*General*	*Maternity*
General hospitals	41 372	2217
District hospitals	7239	786
Maternity hospitals	2342	5473
District nursing centres	859	—
Other (*a*)	774	—
Total	51 812	8476

(*a*) Mothercraft Home and Peacock Convalescent Home

10.3.2 Home Nursing

The Home Nursing Service, provided by the Department of Health Services, provides patient care at home to some 6000 persons statewide at any one time. This is about three times as many patients as provided for by the State's public hospitals at any one time.

Patients are cared for by 300 nurses who in 1984–85 made 445 685 home visits. In extreme cases some of the patients require visits as much as five times a day, but on average patients are visited twice a week.

The type of patient varies. The majority are elderly people but 20 per cent belong to younger age groups and are a cross-section, from children with rare chronic diseases to severely multiply handicapped people requiring varied levels of support.

By providing an alternative to hospital or institutional care, caring for patients in their own homes gives individuals the opportunity to remain independent and close to their family and friends. As well as the psychological benefits of this to the patient it is cost effective. Hospitals are very expensive to run, costing about $170 a day to keep a patient in hospital. Certain types of patients can receive the same quality of care at home for a fraction of that cost.

The Home Nursing Service is staffed by Registered General Nurses (some with further community health training) supported by trained auxiliary nurses and backed-up by home help staff who provide domestic aid to the family.

Home nursing projects are administered from 22 hospitals around the State. The scheme was structured in this way partly to encourage hospital boards to see their role in a broader community context rather than in isolation. Patients are referred by various agencies, including general practitioners, social workers, welfare officers, and other health professionals in the community.

The Home Nursing Service offers a wide range of aid and advice according to need. The services include:

- equipment in the form of wheelchairs, commodes, bed pans, and sheepskins;
- linen service;
- day care centres for the patient to take the pressure off families;
- respite holiday admissions, taking the pressure off the family caring for a nursing patient by providing information and criteria for this scheme.

An effective home nursing service prevents people occupying hospital beds that may be needed for patients suffering from more acute illnesses. In the case of the elderly, it prevents nursing home beds being taken up by persons who could cope at home, while someone in real need cannot get a place. The effective use of accommodation for the elderly is particularly important. Although Tasmania has more than the national average number of nursing home beds for the elderly, it is unlikely that any more will be provided in the near future, because of funding restraints.

To meet the needs of an increasing aged population the best possible use of existing facilities must be made. To achieve this the Department of Health Services launched a unique scheme. Three professional geriatric assessment teams were set up to cover the three major geographic regions of the State, the South, North East, and North West. Each team has a senior nurse, social worker, occupational therapist and receptionist and their role is to ensure that every elderly person in need of help receives the most appropriate services available.

The object of the teams is to help all elderly people make contact with appropriate home care, elderly persons' units, hostel and nursing home accommodation. The teams are also able to assist the providers of accommodation for the elderly to fill that accommodation with the most appropriate applicants. In practice each team maintains a list of all people known to the caring agencies in the team's area. The team then visits these people and assesses their needs and what their priorities are. In this way, those with the greatest need receive the earliest attention.

One of the aims of the geriatric assessment teams is to remove the fear among many that accommodation for the elderly will not be available when it is needed. That fear has been responsible for people entering nursing homes before necessary and thereby denying those in greater need.

Pilot testing of the scheme showed its worth. In a trial a list of 1 500 names of elderly persons said to be in need of accommodation was provided as being in need of accommodation. A senior nursing sister set out to interview all those on the list. After eliminating from the list those who had moved, died, found accommodation already, and were unknowingly put on the list by relatives, the sister found 20 people in immediate need of accommodation.

One of the points this test proved was that many people did not know that home care services were available as an alternative to nursing homes.

After its first decade, the picture for home nursing is certainly not one of total satisfaction or complete success. But more remains to be done, particularly in the area of educating the public about what the service has to offer, and a change in community attitudes.

10.4 HEALTH MAINTENANCE

Increasingly it is being argued that preventing illness is not only the best, but the cheapest, form of health care provision. This move is evident in an increasing emphasis on health education for adults in particular. But it is also part of the rationale for such measures as fluoridating public water supplies and introducing a range of screening and monitoring services for children especially. Examples are the Child Health Clinics, mobile dental units, school nurses, dental therapists and medical officers.

10.4.1 Child Health

The Child Health Service commenced in 1917 under the auspices of two voluntary organisations, the Hobart and the Launceston Child Welfare Associations. Since then, the Tasmanian Government, through the Department of Health Services, has increasingly assumed responsibility and now provides the staff and the majority of the buildings. However, the voluntary organisation which has become the Child Health Association of Tasmania, still owns a number of the Child Health Centres and the Association's committees continue to support and to meet the running costs of the majority of the Child Health Centres.

In 1985 there were 118 Child Health Centres and 15 travelling units. Triple certificated child health nurses attached to these Centres advise mothers on all aspects of caring for babies and young children. Mothers are advised on infant feeding, child development and other health and social problems that occur in the family. The registered nurses screen children's growth and development to detect, as early as possible, a deviation from the normal pattern of development and refer these to the family doctor or the appropriate agency for investigation and/or early treatment. Child health nurses visit new born babies at home and continue the supervision and

'Curative Medicine' or Prevention

An article contributed by the Tasmanian Department of Health Services

The Tasmanian Department of Health Services spends in excess of $130 million a year on the health care system for the State. By far the largest amount is spent on running public hospitals, $105 million. The rest of the budget is divided up to be spent on public health, maintaining food and water hygiene standards and community health — taking care to people in their homes.

The figures illustrate the distinct bias towards 'curative medicine'; that is curing those who are sick in institutions such as hospitals. But the irony is that even with such huge amounts of money being spent, and with technological advances in health care, in some respects we are not as healthy as our turn-of-the century forebears.

Today we do less exercise, eat a less balanced diet, smoke more and consume more alcohol. The result is 'the new epidemics' of our society, heart disease, cancer and alcoholism.

The figures tell the story: In 1905 heart disease caused just over three per cent of all deaths. Currently it causes some 36 per cent of deaths. Similarly, cancer has tripled as a cause of death in the last 80 years.

The modern lifestyle is the major health problem of today. A lifestyle that places us at risk from motor vehicle accidents, from heart disease, cancer, alcohol-related problems, and stress-related illnesses of anxiety, neurosis and depression.

The 'new epidemics' call for a fundamental rethink in the way the public regards personal health and health services. They cannot be cured in hospitals by 'hi-tech' medicine, or by wonder drugs. Curative medicine can only alleviate the symptoms. Cigarette smoking is a case in point.

Some 40 per cent of the male and 30 per cent of the female population smoke (and the figure among women is increasing). This is despite the fact that smoking has been declared a man-made epidemic by the World Health Organisation, is condemned as harmful by all leading medical bodies, the existence of 30 000 articles published since 1962 on the health risks, and the 16 000 smoking-related deaths each year in Australia.

Tasmania has proportionately the highest death rate from some tobacco-related diseases of any State. More than 500 Tasmanians die each year from diseases associated with smoking. This habit is the major cause of preventable death and disease in Tasmania and as such is a priority target for the Department of Health Services.

Yet curative medicine cannot provide a cure for smoking, it can only treat the results; heart disease, lung cancer, emphysema, bronchitis, and a host of other complications. The real cure lies in prevention, in not taking up smoking in the first place, and in encouraging smokers to give up. The preventive health answer to smoking is an integrated approach which tackles the causes rooted in complex social, economic and political conditions.

The *Quit. For Life* anti-smoking campaign which the Department ran tackled the social myths surrounding smoking. Based around mass-reach techniques using the media this was a campaign first to alert smokers to the dangers of tobacco and then to offer them help in quitting. Smokers were warned of the dangers of their habit in two newspaper supplements delivered to every home in the State. This was followed up with television advertisements.

The helping hand came in the form of *Quit Kits* which were specially designed packages containing an explanatory booklet, an audio tape and cards to monitor progress. These were distributed through all the State's pharmacies. Working in co-operation with voluntary groups, stop-smoking courses were encouraged and promoted.

At the same time fiscal and legislative measures are being taken by the Tasmanian Government which affect smoking rates. Increases in taxation have an effect on consumption, and there are moves to tighten enforcement of laws governing the sale of cigarettes to minors and toughen and make more informative health warnings on tobacco products.

This is an example of preventive medicine tackling underlying causes on many fronts, and is worlds away from high technology medicine.

The paradox here is that on the one hand, medical technology has transformed the treatment of a wide range of illnesses and diseases. Yet on the other hand despite the huge expenditure on curative medicine it can do little to cure smoking, and there are no medical cures for lifestyle diseases such as heart disease brought on by obesity, or the drink driver involved in a smash. The cure lies in prevention, by the individual.

It is therefore the Department of Health Services' objective to promote preventive medicine in the hope that attitude change will take place in the community and that a balanced lifestyle becomes the accepted route to better health. The community can no longer afford to believe we can abuse our bodies with the expectation that a miracle cure exists in a sparkling new hospital.

support either at home or, more commonly, in the Child Health Centre where individual records are maintained. Nurses also arrange for examinations to be carried out by family doctors under the Pre-School Medical Scheme. Departmental medical officers carry out examinations in Child Health Centres.

Mothercraft Home

The Mothercraft Home admits babies and toddlers up to the age of 6 years for the assessment and management of such problems as failure to thrive, establishment of breast feeding, dietary intolerance as well as for adoption.

The Mothercraft Home also caters for emotionally deprived and physically abused children, or children whose parents are unable to cope with them at home — 'babies at risk'. The mother is usually admitted with the child and offered help and support with a plan of management designed to help them cope with and accept the child.

Accommodation for mentally handicapped children from birth to three years is also available at the Home, after which they are usually transferred to the Royal Derwent Hospital, New Norfolk.

The original Mothercraft Home was located in Pirie Street, New Town, but due to deterioration of the building over the years, the Home was moved from New Town to Gore Street, South Hobart, in March, 1982.

The old stone home called 'Flint House' was built in 1856, and was purchased by the Hobart Child Welfare Association with the aid of a government grant of £250. It was officially opened on 13th August, 1925. The building was to be used in a similar way to the Dr. Truby King Karitane Homes in New Zealand, 'for the help and care of mothers and babies with breast feeding difficulties, for the adjustment of dietary problems, nursing of premature babies until they were able to thrive under ordinary conditions and care of boarder babies whilst their mothers were in hospital'. Referrals come mainly from General Practitioners, Paediatricians, Child Health Clinics, the Community Welfare Department, maternity units, and the Child Protection Board.

The basic aim of the Mothercraft Home is to restore the child to its natural environment within the family unit as soon as possible. Mothers are encouraged to live in wherever possible, and for this, no cost is incurred by the mother except for her meals. Tea and coffee making facilities, sitting rooms with TV, magazines and electric organ and laundry facilities are all available free of charge.

The Mothercraft Home is also a training school, the only one of its kind in Tasmania, where Mothercraft Nurses can undergo a 15 month course in the care of mothers and babies. Registered nurses already holding general and midwifery certificates can also undertake a six month course in Child Health.

At any one time there are 18 Mothercraft and eight Child Health nurses in training at the Home.

Registered nurses are also employed by the State Health Department to supervise the health and general well being of children in schools. Monitoring of children's health is carried out through co-operation between school nurses, parents, teachers, guidance officers, welfare officers and other ancillary services.

The main role of the School Health Service is that of screening and referral. Each child receives an examination by a school medical officer at 5 years of age or during the first year of attendance, with reviews as necessary. Some children may also be seen by the medical officer again at the ages of 11 and 15. 11 year old children not causing concern have a full health assessment by the School Nurse. Routinely, all children have vision screening, hearing tests, and checks of height, weight, thyroid, posture and skin. Where necessary, checks are made for infestation and hygiene.

Frequency of the visits of the school nurse varies, depending on the size of the school and the age and needs of the pupils. Weekly visits are made to the larger suburban primary and high schools. Frequency of visits to country schools and smaller schools vary according to needs.

When any medical defect is found it is either observed for later review, or the parents are notified by telephone, home visit or letter. After notification, arrangements are made, either by the parent or the nurse, for the child to receive treatment. Medical reports are sent back to the School Health Service, to keep the nurse informed of any present and future management of the problem.

The nurse informs the school staff or the referring agency of any relevant information which may affect the child in the school situation. This communication between the nurse and school staff ensures that they are mutually aware of the continuing management or resolution of the problem. As well, informal discussion often increases awareness of family pressures which may be causing health and personal problems affecting the child's education.

10.4.2 Dental Health

Free dental treatment is available each year for every child up to the school leaving age from the School Dental Health Service. At the end of June 1985, 41 clinics had been established and 57 mobile dental units were visiting schools. The service had a staff of the equivalent of 65 full-time Dental Therapists and 14 District Dental Officers.

In 1966 Tasmania became the first Australian State to develop a School of Dental Therapy. As well as training Tasmanian students in a two year course for service IN clinics throughout the State the Tasmanian School also trains students on behalf of the Australian Capital Territory Health Commission and the Australian Development Assistance Bureau.

The School is located in Hobart and has residential hostel accommodation for up to 28 students.

During 1984–85, a total of 64 574 school children and 1 526 pre-school age children were treated.

10.4.3 Health Education

Traditionally health education has relied upon taking messages to groups of individuals, or working through institutions such as schools. But it is becoming more cost effective to use mass-reach techniques to spread the desired message.

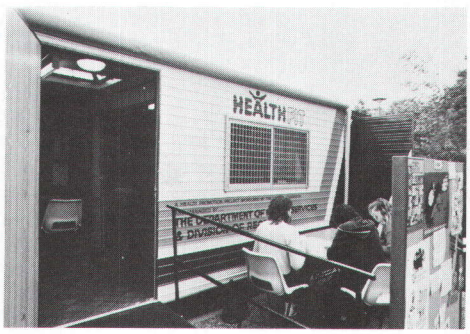
The Department of Health Services has therefore begun to use the mass media extensively in its health education. It has published its own "newspapers" as supplements within the daily and weekly print media. Television and radio advertising have played a big part in specific campaigns. The Department has even co-produced films using such identities as Robert de Castella. It is also a sports sponsor. But in a media-saturated world, the health message must battle against all-comers who often have more money to spend on the medium and whose message is more superficially appealing. To sell its message, the Department must substitute attractive virtues, for the so-called attractive vices, smoking, drinking, sedentary lifestyle. One of the initiatives recently started is the Healthfit unit.

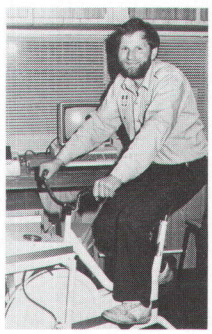
The Healthfit unit is a specially-built caravan which houses a computer and test equipment. Its role is to tour the State delivering health and fitness tests and preaching the healthy lifestyle message in a direct manner. Individuals are given a computerised health assessment, which, linked with basic physical measurements, taken at the time, give a clue to their health. A counsellor then discusses the test results and suggests improvements that can be made. Five basic lifestyle subjects are examined; exercise, or lack of it, nutrition, smoking, alcohol, and stress.

The rationale behind the scheme is three-pronged:

- to motivate the individual to improve his/her lifestyle in specific areas like fitness, stress, diet, and weight, based on the person's specific needs and interests at that time;
- to help analyse specific problems and inter-relationships between lifestyle factors (e.g. stress may be related to excessive smoking or alcohol consumption) and to recommend to the person specific programs, often based upon fact sheets specially prepared for use in the unit;
- to provide baseline data for research. The data may be used to obtain descriptive statistics on the health status of different groups in the community or to measure changes that may occur over time with specific groups who have participated in the assessment previously.

The Healthfit unit is a joint venture managed by the Department of Health Services and the Division of Recreation, and funded by the Menzies Foundation and the Commonwealth Department of Sport and Recreation. The unit is a practical reminder to the community of the need to rethink lifestyles, and raises the very issues at the core of changes to the health system in a way that is relevant to the individual.





10.5 MENTAL HEALTH

Significant advances have been made in the field of clinical psychiatry and in the treatment of mental illness during the past three decades. The development of psychotropic drugs, new therapeutic techniques and improved methods of clinical practice have revolutionised the mental hospital from an institution for the incarceration of lunatics to a modern hospital geared to the care and rehabilitation of the sufferers of psychiatric disorders. In Tasmania a range of services for the mentally ill and the intellectually handicapped are provided by the Mental Health Services Commission, a statutory authority established in 1967.

10.5.1 Adult Psychiatric Services

Adult psychiatric services are provided from the Royal Derwent Hospital, psychiatric units within general hospitals and various community based clinics located throughout the State.

The Royal Derwent Hospital at New Norfolk in the south is the State's principal centre for treatment of patients suffering severe and chronic psychiatric illness. Approximately 300 beds comprising nine wards, cater for medium to long-term management, acute close management and rehabilitation, with active and individualized programmes replacing custodial care wherever possible. Residential accommodation is also supplied for long-term psychotic patients. A psychiatric unit, located at the Royal Hobart Hospital has 23 beds available for acute cases presented to Casualty as well as from general referral sources. This unit also has a major teaching function at undergraduate and post-graduate levels. As well, two Community Centres providing general community access in addition to dealing entirely with many patients who need no hospital intervention, provide an alternative to hospital admission. From these Centres, a team approach comprising a psychiatrist, a welfare officer and a nursing sister, has been developed. The Centres in Hobart City and Bellerive are to be complemented with a Glenorchy Centre when accommodation is located. A Day Centre for elderly brain failure patients is located in South Hobart where specialist consultation, respite care and assessment are provided.

The north of the State is serviced by the Lindsay Miller Clinic attached to the Launceston General Hospital, and the north-west by the Spencer Psychiatric Clinic and the Devon Clinic located at the North-Western and Mersey General Hospitals respectively. The Lindsay Miller Clinic provides acute psychiatric management on an in-patient, day-patient and out-patient basis. The unit has 16 beds with nursing services being provided by the hospital.

The Spencer Psychiatric Clinic has 17 in-patient beds and out-patient facilities. The unit is also recognised as an Alcohol and Drug Dependency Treatment Centre and provides comprehensive medical treatment for all psychiatric disorders. At the Devon Clinic clients are dealt with on an out-patient basis, with referral to hospital when necessary. Psychiatric assessment, medical treatment, counselling and psychotherapy using a team approach are available.

10.15 Adult Psychiatric Patients, Tasmania, 1984–85

Hospital/Clinic	*In-patients*	*Out-patients/ Day-patients*
Royal Derwent	259	49
Royal Hobart	290	678
Lindsay Miller Clinic	235	681
Spencer Clinic	257	478
Devon Clinic	240	98
Total	1 281	1 984
Community Centres	—	2 086

10.5.2 Child and Adolescent Psychiatric Services

Services for young people are located in Hobart and Launceston. Operating from Clare Street, New Town, the Southern service provides a multi-disciplinary approach to the management of a range of problems from temper tantrums in the pre-school child to delinquency in older children. There is a strong emphasis on a family centred approach, and on consultation with other agencies who may also be involved with the young person or his family. Staff in the South hold regular clinics in outlying and suburban areas such as Rokeby/Bridgewater, the Huon Valley and Kingborough.

In the North, the Wellington Street Clinic provides a similar style of service, although there are fewer staff. Consultations with other departments have included collaboration with the Education Department in a task force on early school leavers or 'drop outs'.

10.16 Child and Adolescent Out-Patients, Tasmania, 1984–85

Region	*Out-patients*
North	985
South	312
Total	1 297

10.5.3 Intellectual Handicap Services

In the south, services for adults are centred at the Willow Court Residential Training Centre located within the Royal Derwent Hospital at New Norfolk. The Centre manages a residential population of some 320 clients whose disabilities range from moderate to severe. The gradual reorganisation of the Centre's traditional departmental structure toward a programmatic system of service delivery has enabled an increasing emphasis on habilitation and other training for a less dependent lifestyle. The Quindalup Respite Care Centre in Hobart provides a residential respite service for children under 16 years of age as well as a limited day care service.

In the north, the Rocherlea Training Centre in Launceston provides a residential respite care service to intellectually disabled people of all ages and levels of disability. It also provides a range of social and vocational training programs to adults who live within commuting distance.

10.17 Intellectually Handicapped Patients, Tasmania, 1984–85

Patients	*Number*
Residential	38
Out-patients	41
Respite care	148
Day training	120

10.5.4 Alcohol and Drug Dependency Services

Treatment of alcohol and drug dependency in Tasmania is provided at two centres, the John Edis Hospital in Hobart and the Launceston and Northern Tasmanian Alcohol and Drug Dependency Centre at the Launceston General Hospital. The John Edis Hospital has facilities for outpatient, day-patient, and in-patient care as well as a 10 bed detoxification unit. The northern centre provides medical assessment and treatment combined with individual counselling and group work. Beds are provided at the Lindsay Miller Clinic for medical treatment of short duration while detoxification is managed at the hospital. In the south the service is planning to commence locally based clinics at health centres.

10.18 Alcohol and Drug Dependent Patients, Tasmania, 1984–85

Patients	*Number*
In-patients	417
Out-patients	1 015
Day-patients	54

10.6 REFERENCES

ABS Publications Produced by the Canberra Office:

Australian Health Survey 1983 (4311.0).
Australian Demographic Statistics (3101.0), quarterly.
Causes of Death, Age Specific Death Rates — Australia 1968–1978 (3308.0).
Children's Dental Health Survey, Australia, November 1983 (4350.0).
Children's Immunisation Survey, Australia, November 1983 (4352.0).
Perinatal Deaths — Australia (3304.0), annual.

ABS Publications Produced by the Tasmanian Office:

Deaths Tasmania (3304.6), annual.
Social Report Tasmania, Hobart, 1985.

Other Publications:

Brown, Joan C., Poverty is not a Crime, Tasmanian Historical Research Association, Hobart, 1972.
Child Health Association, *Annual Report 1984–85*.
Department of Health (Commonwealth), Annual Report of the Director-General of Health, Australian Government Publishing Service, Canberra.
Department of Health Services, *Report for the Year*, Government Printer, Hobart.
Health Insurance Commission, *Eleventh Annual Report 1984–85*.
Mental Health Services Commission, *Annual Report*, Government Printer, Hobart.

Chapter 11

SOCIAL WELFARE

		Page No.
11.1	**Income Maintenance**	184
11.1.1	Pensions	184
11.1.2	Unemployment and Sickness Benefits	186
11.1.3	Allowances for Families	187
11.1.4	Other Benefits and Allowances	188
11.2	**Direct Services**	189
11.2.1	Child Welfare	189
11.2.2	Family Assistance	192
11.2.3	Community Programs	193
11.2.4	Residential Care for the Aged and Disabled	196
11.3	**Voluntary Agencies**	196
11.4	**References**	197

Chapter 11

SOCIAL WELFARE

The main objective of the Australian social welfare system is the alleviation of poverty. Support for families with children is also provided in accordance with the high value Australians have traditionally placed on family formation and child rearing.

In pursuing these objectives, certain major principles have long been embodied in the system:

- the community as a whole accepts responsibility for the provision of income support to those individuals and families who are unable (or are not expected) to support themselves;
- payments are provided to such people as a right;
- payments are targeted towards particular categories of people in need (eg. to the aged, sole parents, the sick and unemployed) and, generally, according to people's means;
- support for children is provided in recognition that, at any level of income, people with children have greater needs than do those without.

Several major social and economic changes have occurred in the last decade with significant implications for the social security system. There have been significant changes in economic conditions and the labour force. Changes have occurred in family composition, including an increase in the number of sole parent families whose circumstances limit participation in the workforce. There has been also a large increase in the number of families with children dependent on pensions or benefits.

Historically, the Commonwealth Government became responsible for income security at a time when the only people seen to be 'in need' were those unable, as a result of age, widowhood or handicap, to support themselves.

The State Government's role has been one of child welfare, in areas of protection, neglect and care.

The past ten years, however, have seen both State and Commonwealth Governments broadening their spheres of operations, introducing both family and community oriented services. For example:

- the recognition of the lone father by extending, in 1978, the supporting Mothers Benefit to encompass *all* lone parents;
- the introduction in the same year of the family Support Services Scheme for the introduction of new and innovative welfare services by the non-government sectors.
- in 1975, funds became available for Family Day Care Schemes and Childhood Services;
- in 1979, the Department for Community Welfare introduced the Family Assistance Scheme;
- funds were allocated to Neighbourhood Houses in 1981;
- such allowances as Family Income Supplement, Rental Assistance, Carer's Pension are among some of the many other services to be made available.

Against this, however, have been:

- the demise of the universal pension for people over 70 years.
- the abolition of family allowances for students over 16 who got Secondary Allowance Scheme (SAS) payments, and
- the change in child care funding from an operational subsidy to a fee relief scheme.

In the absence of a commonly accepted framework for describing and analysing 'social welfare' in its totality, two strands are prominent, even if fuzzy at the edges. A large component of 'social welfare' consists of cash payments to people in need. Although perhaps not all embracing nor definitive, the term income main-

tenance can be used to encompass all regular cash benefits paid to individuals.

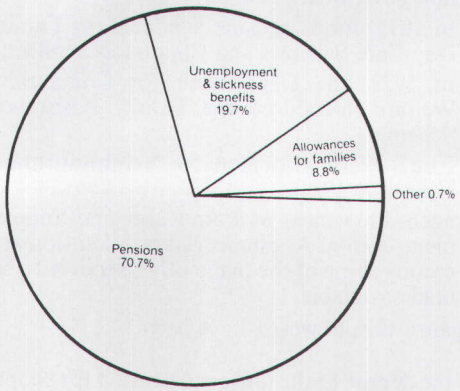
An equally large, if not larger, component of 'social welfare' consists of a vast array of direct services provided by governments, and non-government agencies, often with at least some funding provided by government.

Together, income maintenance payments and direct services to individuals, the 'social welfare' system is a complex net of activities providing communal assistance to individuals that in one way or another involves almost all members of our society.

11.1 INCOME MAINTENANCE

Income maintenance payments to individuals are mostly provided by the Commonwealth Government. During 1984–85, $17 833 million were expended in Australia on social security and welfare by the Commonwealth, almost 28 per cent of the total Government outlay.

In 1984–85 more than $500 million were paid to Tasmanians in the form of pensions and benefits. At the end of the year (30 June 1985) in excess of 155 000 people (almost one third of the State's population) were being financially assisted with cash payments direct from the Commonwealth Government.



Components of income maintenance payments, Tasmania, 1984–85

11.1.1 Pensions

'The pension is in lieu of wages. It supposes that the pensioner's situation is permanent, or at least long-term, and carries with it no rehabilitative implications.'

(Rennison, 1970, p.58)

The introduction of a pension for aged persons in 1909 began Australia's national provision of social security payments. Since then a number of other regular income payments have been introduced to meet specific cases of perceived need: for people incapacitated for work, for spouses of age or invalid pensioners, for sole supporting parents. In addition, disability and service pensions have been provided for returned servicemen and women and their dependents.

11.1 Pensions Paid, Tasmania, 1984–85

Pension type	*Number of beneficiaries at 30 June 1985*	*Expenditure ($m)*
Age	39 782	165.2
Service	15 416	58.4
Invalid (*a*)	10 291	46.5
Disability	16 743	38.8
Widow's	4 979	27.7
Supporting parents'	4 776	30.3
Total	91 987	366.9

(*a*) Includes Sheltered Employment Allowance
Source: Departments of Social Security and Veterans Affairs reports.

Age Pensions

Women aged 60 and over and men aged 65 and over are eligible for the age pension subject to income and assets conditions and residential qualifications.

During the financial year 1984–85 just over $165 million (2.9 per cent of total expenditure) were paid to aged people in Tasmania. At the end of June the 39 782 persons registered, comprised the lowest total for that month since 1980. Nevertheless since 1979 the number of pensioners has shown a levelling off after a 59 per cent increase during the 1970s when the eligibility criteria were broadened.

11.2 Age Pensions and Expenditure, Tasmania

Year	*Number at 30 June (a)*	*Financial year expenditure ($m)*
1971	24 894	21.8
1975	34 269	60.1
1979	39 428	97.0
1983	41 639	143.9
1985	39 782	165.2

(*a*) Includes wife/spouse/carer pensioners from 1983
Source: Department of Social Security Reports

However, unless the eligibility criteria are further tightened, the number of age pensioners are estimated to again increase significantly. At June 1985 an estimated 66 600 persons aged 60 or over comprised 15 per cent of the State's population of whom 58 per cent were age pensioners. By

the year 2001 an estimated 82 600 persons or 22 per cent of Tasmanians will be aged 60 or over. At the same rate of pension claim, the number of pensioners will increase to 48 500.

Service Pensions

In addition to the Social Security age pension, the Department of Veterans Affairs provides service pensions to male veterans aged 60 years and over and female veterans aged 55 and over. At June 1985 15 416 service pensions were being paid, 9 049 to veterans and 6 367 to wives and widows of veterans.

11.3 Service Pensions, Tasmania, June 1985

War service	*Number of pensions*
1914–18 war	217
1939–45 war	13 684
Korea and Malaya	107
British Commonwealth	1 054
Allied Forces	239
Special overseas service	55
Miscellaneous	60
Total	15 416

In 10 years the number of service pensions has almost trebled. In that time the composition of the recipients has undergone considerable change due principally to a trebling in the number of World War II veterans reaching the age of eligibility. In 1975 the 5 375 service pensioners comprised: Boer War, 3; 1914–18 war, 1 088; 1939–45 war, 4 265; Korea and Malaya service, 17; and miscellaneous, 2.

11.4 Service Pensioners, Tasmania, 1975–1985

Year	*Number at 30 June*	*Financial year expenditure ($m)*
1975	5 375	6.7
1979	8 960	18.5
1981	11 017	27.4
1983	13 738	42.3
1985	15 416	58.4

Invalid and Disability Pensions

An invalid pension is payable to people over 16 years of age who are permanently incapacitated for work (to the extent of at least 85 per cent), or are permanently blind. At 30 June 1985, 9 820 persons were receiving this pension, an increase of 2 554 on the number at June 1984.

In addition to the invalid pension provided through the Department of Social Security, the Department of Veterans Affairs provides a similar pension to veterans as compensation for incapacity accepted as war-service related. At 30 June 1985, 16 743 disability pensions were being paid and expenditure for the year amounted to $38.8 million.

11.5 Invalid and Disability Pensions and Expenditure, Tasmania

Year	*Invalid pension (a)*	
	Number at 30 June	*Financial year expenditure*
1979	8 052	20.7
1981	8 142	25.3
1983	8 530	32.2
1985	9 820	44.0
Year	*Disability pension*	
	Number at 30 June	*Financial year expenditure*
1979	18 127	18.7
1981	16 944	21.9
1983	16 805	28.9
1985	16 743	38.8

(*a*) Includes spouse carer pensioners from 1983
Source: Departments of Social Security and Veteran Affairs reports.

An allowance equal to the invalid pension can be paid to people who work in approved sheltered employment services, if they are otherwise eligible for the invalid pension. During 1984–85 a total of $2.5 million were paid as sheltered employment allowances and at 30 June, 471 persons were receiving the allowance.

Widow's Pension and Supporting Parents Benefit

The widows' pension was introduced in 1942 to provide a regular income for women who had lost the support of their partner. For the first year since 1977 the number of pensions paid dropped to under 5000 at June 1985.

11.6 Widow's Pensions and Expenditure, Tasmania

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1977	4 572	12.5
1979	5 229	16.6
1981	5 230	21.0
1983	5 144	24.2
1985	4 979	27.7

Source: Department of Social Security reports

Sole parents who have the custody, care and control of a child aged under 16, or a dependent full-time student aged 16 to 24 inclusive can be eligible for a supporting parent's benefit. It was originally introduced in 1973 as the supporting mothers' benefit and renamed in 1977 when extended to supporting fathers.

Widow's Pension

A widow's pension may be paid to:

- a (de jure) widow;
- a woman who is a divorcee;
- a woman who has been deserted by her husband without just cause for a period of not less than six months;
- a woman whose husband has been convicted of an offence and has been imprisoned for a period of not less than six months;
- a woman who was the de facto wife of a man for at least three years immediately before his death; and
- a woman who is a victim of a bigamous marriage in certain circumstances.

Supporting parent's benefit

A person eligible for a supporting parent's benefit includes:

- a widower, or a man whose de facto wife has died;
- a male divorcee;
- a separated husband or wife or a separated de facto husband or wife;
- an unmarried parent;
- a parent whose spouse or de facto spouse has been convicted of an offence, and has been imprisoned as a result for 14 days or longer; and
- a married person left caring for a child or children and unable to live with his/her spouse in the matrimonial home because of the spouse's illness or infirmity.

11.7 Number of and Expenditure on Supporting Parents' Benefit, Tasmania

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1977	1 778	5.6
1979	2 057	7.5
1981	3 519	13.6
1983	4 047	22.1
1985	4 776	30.3

Source: Department of Social Security reports

11.1.2 Unemployment, and Sickness Benefits

Unemployment Benefits

With rising unemployment during the 1970s and early 80s, the number of people receiving benefits has risen more than five fold; from 3 825 recipients in 1970, to 18 870 people at June 1985 after a peak of 32 147 during 1981–82. As a consequence the amount paid on this category of welfare expenditure is now exceeded only by age pension payments. During the 1984–85 year a total of 25 719 benefits were granted in Tasmania.

11.8 Unemployment Benefits, Tasmania

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1971	782	0.4
1975	4 439	7.8
1979	10 420	28.6
1981	12 929	34.7
1983	20 355	78.3
1985	18 870	96.9

Source: Department of Social Security reports

An unemployment benefit may be paid fortnightly, generally after a seven-day waiting period, to people aged at least 16 but under 65 in the case of men or under 60 in the case of women. They must have lived in Australia for at least one year immediately prior to claiming or intend to remain in Australia permanently.

To be eligible for unemployment benefit a person must:

- have been unemployed for the period covered by the benefit;
- be capable of undertaking and willing to undertake suitable paid work;
- be taking reasonable steps to obtain work;
- not be unemployed due to being, or having been, engaged in industrial action; and
- not be unemployed due to industrial action by other members of a trade union of which the person is a member.

Sickness Benefits

A sickness benefit is paid to people who have been temporarily incapacitated for work because of sickness or accident and who have suffered a loss of income as a result of the incapacity or who, but for the incapacity would qualify for the unemployment benefit. During the 1984–85 financial year a total of 3 411 benefits were granted in Tasmania, the lowest number since 1972–73. At June 1985, 1 025 benefits were being paid.

11.9 Sickness Benefits, Tasmania

Year	Number of recipients at 30 June	Financial year expenditure ($m)
1977	4 662	2.4
1979	3 881	2.0
1981	3 626	2.9
1983	3 750	4.6
1985	1 025	5.5

Source: Department of Social Security reports

11.1.3 Allowances for Families

Family Allowances

In 1976 child endowment, along with tax rebates for dependent children, was replaced by a family allowance, usually payable to the mother. At the same time the value of the allowance was significantly increased so that total payments in Tasmania increased from $7.7 million in 1975–76 to $31 million in 1976–77.

People who have the custody, care and control of one or more children under 16, or one or more full-time students aged 16 to 24 inclusive, who are wholly or substantially dependent on them, may receive the family allowance. Payment is normally made to the mother. Payments for students aged 18–24 were withdrawn from November 1985 (other than for those in needy families).

11.10 Family Allowance, Tasmania, 30 June

Year	Number of dependents	Number of families & approved institutions	Financial year expenditure ($m)
1977	129 394	61 358	31.2
1979	125 603	61 135	28.9
1981	123 270	61 309	27.8
1983	122 729	61 820	39.1
1985	123 079	62 734	42.8

Source: Department of Social Security reports

To be eligible for the allowance the person and children must have been born in Australia or intend to remain permanently in Australia. If neither of these conditions is met, family allowance is payable after the claimant and children have been in Australia for 12 months.

Handicapped child's allowance

A handicapped child's allowance is available to parents or guardians of mentally or physically handicapped children under 16 or dependent full-time students aged 16 to 24 inclusive. The allowance is not payable if the student is receiving an invalid pension or supporting parent's benefit.

For the allowance to be payable the handicapped child must require and receive constant, or almost constant, care and attention because of the disability and must be living in the family home.

There is no formal income test but payments for a handicapped child in this category are restricted to parents or guardians with low incomes.

11.11 Handicapped Children's Allowances, Tasmania

Year	Number of recipients at 30 June	Financial year expenditure ($'000)
1977	467	345
1979	568	407
1981	766	529
1983	863	839
1985	996	916

Source: Department of Social Security reports

Double orphan's pension

A guardian or an institution may be paid a double orphan's pension for a child under 16, or a dependent full-time student aged 16 to 24 inclusive, whose parents are dead. The pension is also payable if one parent is dead and:

- the whereabouts of the other parent are not known to the claimant;
- the other parent has been convicted of an offence and sentenced to imprisonment for at least ten years and is serving that sentence; or
- the other parent is an inmate of a mental hospital and will require care and treatment in that or a similar hospital for an indefinite period.

A double orphan's pension may also be paid in respect of a refugee child whose parents are both outside Australia or if their whereabouts are unknown.

The pension is paid free of any income test and is not subject to income tax.

11.12 Double Orphan's Pensions, Tasmania

Year	Number of recipients at 30 June	Financial year expenditure ($'000)
1979	93	54
1981	88	53
1983	122	84
1985	110	72

Source: Department of Social Security reports

Family income supplement

Certain low income families are eligible for a family income supplement, an income-tested,

non-taxable family income supplement payable for each child under 16 years or dependent full-time student aged 16 to 24 inclusive.

A person may qualify, subject to residence requirements, for the allowance provided that:

- the person or his/her spouse is qualified to receive family allowance for a child;
- the person or his/her spouse is not in receipt of other forms of Commonwealth income support or overseas payment that provide for additional payments in respect of that child; and
- the child does not receive or attract payment of a Commonwealth income-tested pension, benefit or allowance.

The allowance is generally paid to the person receiving family allowance for the child (normally the mother).

11.13 Family Income Supplement, Tasmania

Year	At 30 June, number of		Financial year expenditure ($m)
	Recipients	Children	
1983	1 076	2 843	0.2
1984	1 418	3 844	1.8
1985	1 309	3 607	2.1

Source: Department of Social Security reports

11.1.4 Other Benefits and Allowances

The social security system provides a number of other allowances additional to the main benefit provided, the most significant of which are the Special benefit, funeral benefits, and fringe benefits for pensioners.

Special benefit

A special benefit may be paid to people who are not eligible for a pension, unemployment or sickness benefit but who are unable to earn a sufficient livelihood for themselves and their dependants.

The grant of a special benefit and the rate of payment are at the discretion of the Secretary of the Department of Social Security. The rate may not exceed the rate of unemployment or sickness benefit that would be paid if the claimant were qualified to receive either of those benefits.

The benefit is designed to meet cases of special need and payments may be made immediately in an emergency.

Special benefit is generally taxable, but a special tax rebate for beneficiaries ensured that persons wholly or mainly dependent on the benefit would have had insufficient income to attract tax in 1984–85. The first two weeks of benefits paid to victims of natural disasters are not taxable.

Funeral Benefit

A funeral benefit of $20 is payable to a person liable for the funeral costs of an eligible age, invalid, wife or spouse carer pensioner or of a recipient of sheltered employment allowance, a tuberculosis allowance, or rehabilitation allowance in lieu of one of these payments. A benefit of up to $40 is payable to an eligible age, invalid, wife, spouse carer or widow pensioner, a supporting parent beneficiary, or a person in receipt of a sheltered employment allowance, tuberculosis allowance, or rehabilitation allowance in lieu of one of these payments, or a repatriation service pensioner who is liable for the funeral costs of a spouse, child or other eligible social security pensioner. An 'eligible' pensioner is one who is permanently blind or whose income (other than pension) or assets comply with the income and assets tests for Commonwealth pensioner fringe benefits.

11.14 Special Benefits and Funeral Benefits, Tasmania, 1984–85

Benefit	Number of benefits granted	Expenditure ($m)
Special	3 565	3.4
Funeral	1 346	0.4

Source: Department of Social Security reports

Fringe Benefits

The majority of pensioners, beneficiaries of sheltered employment, rehabilitation and supporting parent allowances are entitled to a range of non-cash benefits including concessions on pharmaceuticals, free hearing aid services, telephone and postal concessions, concessions on some rail and bus travel, council rates, driver's licences, car registration fees, power charges and land taxes. At 30 June 1985 51 526 pensioners (85.7 per cent of all pensioners) were receiving pensioner fringe benefits.

In addition, the State Department for Community Welfare provides a number of supplementary allowances to people who are in receipt of pensions or benefits and who satisfy a means criteria.

11.15 Supplementary Assistance 1984–85

Assistance	No. assisted	Expenditure ($)
Heating allowance	11 327	587 317
Spectacles	5 627	379 355
Furniture removals	195	28 837
Funeral expenses	148	85 316
Transport	67	3 148
Mortgage Rental Relief Scheme	922	167 241
Other (*a*)	330	7 755

(*a*) Includes assistance under Residential Domestic Allowance Scheme, Miscellaneous Relief, multiple birth and disaster relief.

11.2 DIRECT SERVICES

Tasmania's early settlers gave little consideration to the causes of poverty, the wisdom of helping those in need or whose responsibility it was to help the aged, the sick, the handicapped or the poor. The hardships of establishing the settlement gave sufficient reason for assistance to be needed as well as given. And while fellow settlers could offer some comfort and help, the responsibility for those in need fell inevitably and naturally to the colonial administration. There were no other sources of help.

The churches barely existed and with only six clergymen, even by 1824, for the entire colony, there was little time for helping to establish social services. The settlers were in no better position to help. According to Joan Brown's study of the development of social services in Tasmania 46 per cent of the population of 14 992 in 1825 were convicts with ex convicts comprising a considerable number of the remainder. 'Wealthy emancipees were still a comparative rarity in 1825 and the bulk of the free settlers were still struggling to establish themselves. Few were in a position to contribute largely to the aid of the less fortunate.'

An early priority was feeding the destitute and for this the principle instrument was the government store. Periods of famine, the need to feed the convicts, newly arrived settlers, the military and public functionaries all combined to produce a situation where more people were on than off the store.

The aged and infirm were soon giving concern to the authorities and one of the biggest problems was the lack of hospital services. Roads, houses, quarters for the troops, stores, a gaol and barracks for the convicts all had precedence over hospitals for the sick and accommodation for the aged, invalid and orphans.

In the 1830s Benevolent Societies were set up in both Launceston and Hobart to help the needy. However, both were soon in constant financial difficulties as a result of public indifference and faded out. The need was constantly greater than the available private resources could meet. Nevertheless, in spite of the problems and inadequacies, services were established; hospitals were built, special provision was made for the mentally ill, indoor and outdoor relief services, although meagre, were provided for the aged, the infirm and for fatherless families and an institution was opened for orphans and destitute children.

After self-government and assumption of local control of the welfare institutions, the second half of the century saw the voluntary agency once again being put at the centre of social service provision, but in an environment of insufficient resources, indifference or hostility. By the end of the century the Government had increasingly become involved in financially supporting agencies and institutions thus cementing a blending of government and voluntary involvement in providing direct welfare services to people in need. At Federation, Tasmania compared well with the other States providing almost all of the services that are provided today.

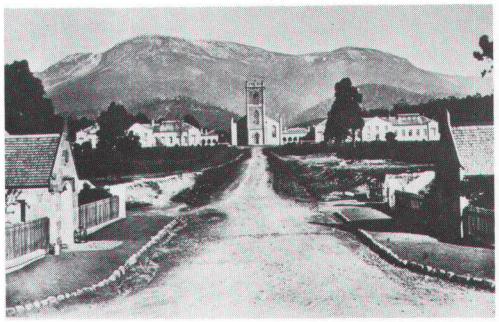
While it is the Commonwealth Government that provides almost all income maintenance payments, it is the State Department for Community Welfare, together with voluntary agencies that provide the personalised help to people in need. Services provided by the Department including child welfare, assistance to families and individuals, community programs and grants accounted for almost $12 million in 1984–85.

11.16 State Government Welfare Expenditure, 1984–85 ($)

Administration	6 042 034
Relief	1 633 241
Child Welfare	1 731 139
Grants	2 301 695
Total	11 708 109

11.2.1 Child Welfare

The foundations of the State's child welfare policies were set, as were most social services, under the administration of Governor Arthur. It was he who accepted responsibility for and tackled the problems of destitute and neglected children of the colony who were in 'danger'. In 1827 the administration established a nursery at Cascades for younger children which, although proving unsuitable, was an improvement. The following year a separate establishment at Port Arthur was opened for boy convicts and the Kings Orphan School was opened for children of female convicts, or destitute children without one or both parents. Thus child welfare was and has remained primarily focussed on neglected, or orphaned children and children brought to notice through the courts.



Orphan Schools, New Town (State Archives)

Children Under Supervision

The *Child Welfare Act* provides that children who are found guilty of offences and those who are found to have been neglected may be placed under the supervision of a Child Welfare Officer for a period up to three years. Whilst this order requires the child to comply with the reasonable directions of the officer, its principle purpose is to facilitate the provision of advice, guidance, counselling and practical help. At 30 June 1985 there were 177 children under the legal supervision of Child Welfare Officers.

Wards of the State

As at 30 June 1985 there were 505 children under Guardianship of which 280 were males and 225 females.

A child may become a Ward of the State in a number of ways. A parent may apply to the Minister to have their child admitted into Guardianship. This practice is most common in the case of babies who are offered for adoption but who are not suitable for immediate placement. A Children's Court may declare a child to be a Ward of the State after finding that the child is neglected, or after finding the child guilty of a certain class of offence. The *Child Welfare Act* also provides for a parent to submit a plea at a Children's Court that their own child is beyond their control.

Once a child has become a Ward of the State, the Director for Community Welfare becomes his or her legal guardian to the exclusion of all others. Through the staff of the Department, and with the help of individuals and groups in the community, the Director may exercise this responsibility for guardianship in a variety of ways.

In many cases it is considered to be in the best interests of a child to provide care by supplementing, rather than substituting for, the care offered by the natural parents. Where it is necessary to remove the child from his/her normal home, it often remains possible to assist both the child and parents in a way which leads towards the re-establishment of a normal and fulfilling parent/child relationship.

11.17 Placement of Wards of the State, June 1985

Children's Homes	51
Family Group Homes	25
Government institutions	9
Foster homes	268
Hospitals, nursing homes and hostels	10
Prisons	5
Living with parents or relatives	102
Living independently	27
Other	8
Total	505

Foster Homes

Some children, through circumstances beyond their control, are unable to live with their natural parents. In some cases their parents are dead, missing, or unable to provide for them. Foster homes provide a form of long-term 'substitute care' approximating more closely to that of a normal family environment. Whilst cared for by foster parents the foster child is still aware of its true identity and in many cases retains periodical contact with his or her natural parents and relations.

Foster care also provides sensitive and appropriate short-term care for special categories of children. In recent years there has been an increase in its application in this area.

Children's Homes

Children's Homes are run by charitable bodies to provide care for children. They are approved under the *Child Welfare Act* 1960 to care for Wards of the State, but also receive other children on the application of their parents or the request of the Department for Community Welfare.

Each home has its own style of operation and seeks to meet the needs of a particular group of children. The Department pays an allowance for each approved bed as well as a board rate for each Ward and a contribution towards the cost of caring for other children. At June 1985 the Children's Homes with Wards were:

Roseneath Children's Home, Launceston,
Glendell Children's Home, Deloraine,
Roland Boys' Home, Sheffield,
Glenhaven Children's Home, Devonport,
Clarendon Children's Home, Kingston,
Kennerley Children's Home, Claremont,
Maylands Salvation Army Home, New Town,
Rosebank Cottage, Moonah,
Yalambee Hostel, Glenorchy.

Family Group Homes

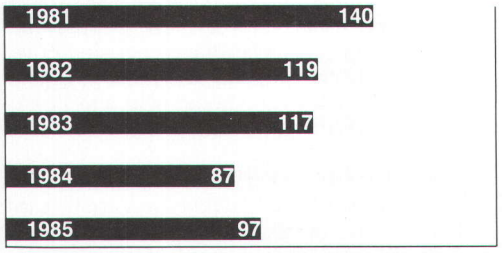
The Department for Community Welfare owns 18 family group homes. All residences are large family homes, strategically placed throughout the State and run by married couples who care for up to six children at a time. Care is provided for a wide range of children including Wards of the State, for short periods of time.

Reasons for admittance to a family group home include the emergency care of children who are — or appear to be — neglected, and care whilst a child's normal family home is unavailable (perhaps because a mother is in hospital). These homes are also used when normal child/parent relationships break down, and a period away from home by the child would appear most beneficial to the family as a whole whilst domestic problems are sorted out. During 1984–85, 690 children were placed in the homes.

Adoption

Adoption is regarded first and foremost as a service for children. Adoption is the legal and social process which enables a child to become a complete and permanent member of a new family. Through adoption the child is able to enjoy the same rights and acquire the same legal status within the family as if he or she was a child born of the marriage.

The majority of children offered for adoption are babies aged between three and six weeks. However, in common with all parts of Australia, Tasmania continues to experience a steady decline in the numbers of such children being offered for adoption.



Adoptions, Tasmania

Inter-Country Adoption

Interest in inter-country adoption continues at a high level within Tasmania with a total of 112 applications recorded on the waiting list as at 30 June 1985.

Because of the extreme complexity of inter-country adoption the time and effort required for processing applications tends to be proportionately far greater than for local applications.

Couples who will be able to meet successfully all the needs arising from an inter-country adoption over the years will need to demonstrate exceptional qualities as parents and other members of their families will also need to be responsible and supportive of the adoption. For these reasons people given the responsibility of investigating applications for inter-country adoption are required to maintain the highest standards in assessing the suitability of couples and their families and to make their assessment in terms of the applicant's understanding of the specific cultural characteristics of the country nominated, as well as the broader and more long-ranging implications of such an adoption for the child and themselves.

Between July 1984 and June 1985, 71 applications for inter-country adoptions were received and 24 children from overseas were placed with approved applicants (8 more than for the previous year). Countries from which children were received during this period were; Korea 15, Sri Lanka 6, and Mauritius 3.

Residential and Community Youth Services

Residential and community youth services in co-operation with field services provides special support and assistance to children and young people whose behaviour may be damaging to themselves or others.

The services are provided through two residential institutions (Ashley Home for Boys and Wybra Hall) and through two non-residential Resource Units.

Ashley Home for Boys

Ashley provides residential institutional care for 14 to 17 year old male offenders. It includes a secure section, although most of the Home is regarded as a medium to low security facility. The daily routine includes a wide range of educational, occupational and recreational activities.

The Superintendent and staff of Ashley in close co-operation with Child Welfare Officers located throughout the State, provide a highly personalised service aimed at assisting each boy to find a satisfying and socially acceptable way of life. The school and trade sections offer a range of practical skills, whilst the whole staff works to encourage and assist their charges with every-day life skills.

Wybra Hall

The purpose of Wybra Hall is to provide residential care, custody, control, guidance and direction to boys and girls whose ages range from 10–14 years for boys and up to 16 years for girls.

Most of the children at Wybra have been placed in the care of the Department for Community Welfare following the commission of offences, although a proportion have been found to be in need of care under the *Child Welfare Act*.

Children are placed at Wybra only after their circumstances have been closely examined by a Child Welfare Officer and it is clear that placement is the most appropriate step. That officer will then maintain a close involvement with the child throughout their stay in the institution, and after discharge.

Some residents are able to return home or move to some other place to live after a short stay. Others need to stay at the institution for longer periods.

It has been normal practice for the children at Wybra to attend local schools if they are able to do so. However, the Education Department has assisted with the establishment of a special class at the institution for those children who are unable to go out to school.

The recent completion of a medium security closed section has greatly enhanced the quality of care offered to young people who are experiencing

severe difficulties. It has also reduced the level of absconding from the institution.

11.18 Occupancy of Government Residences for Children, Tasmania

At 30 June	*Ashley Boys Home*	*Wybra Hall*
1979	14	7
1981	19	13
1983	21	14
1985	12	3

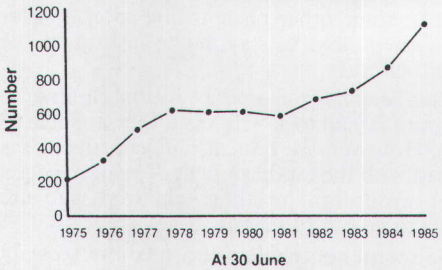
Child Care

The Department for Community Welfare is responsible for the licensing and supervision of facilities where a fee is charged to provide substitute care for children younger than seven years.

These responsibilities include assessment of applicants, maintenance of a support service to licensees, and the keeping of records of holders of current licences. In carrying out these duties, the over-riding aim is to encourage and develop a range of services to meet the needs of families who require substitute day care or short term overnight care for their children.

The Department for Community Welfare staff actively foster community management of locally based children's services and promote high quality care, particularly through training programs and meetings, provision of resource materials, and access to the Department's toy and equipment library. The total of 1 095 child care facilities throughout the State compares with a total of 848 as at 30 June 1984, an increase of 29.1 per cent for the year.

A total of 2 000 childcare places were provided in Tasmania by the Commonwealth Department of Community Services. Programs provide care for pre-school aged children through day-care services and for other young children through after-school and vacation care schemes. Expenditure for 1984–85 totalled $5.1 million in Tasmania. In addition, the Tasmanian Government provided almost $146 000 in grants for child care groups.



Child Care Facilities, Tasmania

Regional Resource Centres

These centres offer day, after-school and holiday activities as a medium through which children and families requiring assistance can receive the support and help which would otherwise have only been available if the children had been received into the full-time care of the Department for Community Welfare. The service provides a more cost-efficient service than residential services and has the capacity to reduce the pressure of numbers, and thus costs, of residential care.

11.2.2 Family Assistance

The Department for Community Welfare has developed a comprehensive program of assistance to individuals and families. These programs comprise financial relief in emergency situations, supplementary and on-going assistance programs and services such as the home-help and home-maker schemes.

Emergency Assistance

Funds are available to field officers to be used in times of crisis or in situations where the family is in danger of breakdown because of immediate financial pressures.

Under Family Assistance, needs such as accommodation costs, debt settlement, essential repairs to household appliances, clothing and household power costs, can be met. All applications for assistance are carefully investigated and need established before a payment is made.

In providing assistance, the Department tries to develop a plan for each individual and family to assist them to cope better with the financial and other demands on them. Child Welfare Officers provide support and counselling to assist in solving some of the problems facing the families.

11.19 Emergency Assistance Provided by Department for Community Welfare, Tasmania

Item	*1983–84*	*1984–85*
Family Assistance		
Number of cases of assistance	1 152	1 385
Number of families involved	834	1 119
Food Orders		
Number of food orders	7 468	7 056
Number of families involved	2 865	2 904
Expenditure ($)		
Total expenditure ($)	220 781	197 970
Expenditure per case	29.56	28.06
Expenditure per family	77.06	68.17

In recent years, there has been an increasing demand for assistance.

The number of families who benefited under the family assistance program increased State-wide by 34 per cent from 834 families in 1983–84 to 1 119 in 1984–85. The number of cases of assistance grew by 20 per cent from 1 152 to 1 385 in the same period.

In addition to the provision of direct assistance, the Department of Community Welfare provides grants to enable agencies to meet demands for emergency relief.

11.20 Grants to Voluntary Agencies for Emergency Relief, 1984–85

Organisation	$
Hobart City Mission	33 000
Glenorchy 5CG	8 500
Christian Care Group, Rokeby	7 500
Bridgewater-Gagebrook Community Service Group	24 000
Launceston City Mission	26 000
Society of St Vincent de Paul	38 100
Tasmanian Aboriginal Centre	1 200
Total	138 300

Home Help

Home help services are designed to help families who find themselves in difficulty due to internal family problems. Although a comparatively small program, the service has enabled a number of children to remain in their own home during a crisis period when otherwise they may have required State care.

Home help is also a valuable contribution in cases of multiple births occurring in a family, when three or more of the babies survive. In these cases the small amount of regular home help gives time for the family to adjust to a new situation. The needs of the children and the parents have to be assessed and assistance integrated with other forms of assistance, including the help given by relatives and friends.

During 1984–85 42 families were assisted helping a total of 107 children. The cost of providing this service was $21 500 for 1984–85.

Homemaker Service

The Homemaker Service is a family and community support service, provided by the Department for Community Welfare and is designed to provide neighbourly contact and practical assistance for families under stress.

The single largest category of persons for whom assistance was provided comprised of one-parent families in receipt of pensions and benefits. Generally these were families experiencing situational or life-cycle crises. Increasingly the most common area in which assistance is requested and provided relates to difficulties experienced with budgeting and debt counselling. Child-related areas (e.g. child management, child development) constituted another major area in which assistance was provided.

Increasingly, the traditional notion of one-to-one work between family and Homemaker is broadening to include the use of group situations. Homemakers are involved in running community education programs in Neighbourhood Houses, Community Centres and Health Centres on parenting skills, budgeting, cooking, relaxation and recreation. This approach attempts to provide information and transfer skills to families before difficulties in these areas occur. Increasingly families are referred to the service because of problems relating to social isolation. These families are often most effectively helped by being linked into the support services in their communities that provide the opportunity for them to develop and maintain relationships with others.

The majority of families using the service are in receipt of pensions or benefits and do not have resources or access to services in times of stress. There is an increasing recognition that services need to be developed at the community level so that families can be assisted and supported without having to rely on formal welfare services.

11.2.3 Community Programs

Youth Services

The Tasyouth Unit of the Department for Community Welfare is responsible for identifying and meeting, where possible, the needs of young people by providing grants to non-government organisations working with unemployed youth.

11.21 Tasmanian Government Grants for Youth Services, 1984–85

Organisation	$
South	
Hobart Streetwork Group	17 000
Kingborough Unemployed Concern Group	6 000
Risdon Vale C.Y.S.S. Evening Program	4 000
Chigwell C.Y.S.S. Evening Program	3 000
Clarence Council Evening Program	4 000
Midway Point Neighbourhood House Program	960
North	
Outreach Youth Worker	6 500
Youthline	500
North West	
Atlas Club, Ulverstone	1 886
Kentish Action to Restore Employment	7 864
Fusion, Burnie	2 750
Other	
Project Hahn	20 000
Total	74 460

The problem of homeless youth, while not new, has become more visible in recent years. Services to homeless youth include: emergency shelters, teaching of survival skills and reconciliation where possible between parents and youth.

The aim is to provide homeless youth with shelter in the short term and the skills in the long term to maintain independent accommodation. The valuable work of non-government organisations is an important adjunct to this service for which funds are provided.

11.22 Tasmanian Government Grants for Youth Accommodation, 1984–85

Organisation	$
Gateway Youth Shelter	37 000
Anglican Family Care (opened in November 1984)	26 874
McIntrye House Youth Shelter (closed September 1984)	9 126
Northern Youth Shelter Association	24 000
North-West Youth Shelter Association, Devonport	29 000
Salvation Army, Oakleigh House, Burnie	6 000
Total	132 000

Handicapped Persons' Services

The trend towards disabled people living at home rather than in special institutions has increased the demand for community support services as disabled people strive for a better quality of life.

During 1984–85 grants totalling $542 000 were paid to 53 non-government organisations to enable them to provide and develop services.

The Commonwealth Rehabilitation Service assists handicapped people to become economically and socially independent. The service is free to virtually any disabled person in the broad working age group who can benefit from it. Teams comprising medical specialists, therapists, trade instructors, teachers and vocational counsellors work towards developing each person's maximum physical, mental, vocational and social potential. A rehabilitation allowance is payable to people who are receiving vocational treatment or training under the CRS program.

Multicultural Services

Assistance is provided to help integrate migrants and refugees into the Tasmanian community. Financial support is given for the continuation of ethnic cultures.

Migrants and refugees totalling 772 persons arrived during 1983–84. This was the lowest intake for four years, but represented 1.1 per cent of the total Australian overseas migrant intake.

11.23 Grants to Migrant Organisations, 1984–85

Organisation	$
Greek Orthodox School	1 000
Migrant Resource Centre (Southern Tasmania)	5 000
Polish Association of Northern Tasmania	1 000
Migrant Resource Centre (Northern Tasmania)	2 667
Ethnic Communities Council of Tasmania	1 500
Southern Tasmanian Refugee Assistance Committee	750
German-Australian Association of Tasmania	1 600
Good neighbour Council of Tasmania	1 000
Task Force Action for Migrant Women	480
Total	14 997

Compared with the previous year, there were significant reductions in migration from Northern Europe, the United Kingdom and Ireland, but notable increases in arrivals from New Zealand, the United States of America, Canada, Hong Kong and China.

Women's Shelters

Women's Shelters have as their primary purpose the provision of shelter and support services to women and children who have been subjected to domestic violence or who are rendered homeless through some personal or social crisis. Most shelters are not designed to provide accommodation to women and children requiring intensive, sustained specialised services and in cases where it is necessary to provide longer term accommodation and more intensive support, funding is made available to specific purpose refuges. Annie Kenney and Karinya for example accommodate single young women only and Caroline House provides for women with alcohol and drug related difficulties.

Approximately 1 883 women and children were accommodated during 1984–85.

Most shelters have not been established and do not have the resources to provide longer term support although most are forced into this role because of the increasing difficulty faced by women with children in locating alternative accommodation. The Housing Department continues to provide valuable assistance to both the Launceston and Hobart Women's Shelters in making special provision for women and children accommodated in refuges who seek public housing. Women moving out of the shelter in need of financial assistance may apply to the Family Assistance Scheme.

Shelters vary in respect of mode of management employed and the intensity and breadth of services provided to users. Some shelters employ

a style of management which involves the users of the shelter in the everyday operations of the shelter, e.g. cooking, cleaning, shopping. Staff are free to engage in the primary functions of the shelter, e.g. the provision of support and information to women in crisis. Other shelters have adopted a less participatory style of operation and have as their primary focus the provision of accommodation to women and children in crisis. All shelters are required, as a condition of funding, to provide services which are accessible on a 24 hour, 7 day a week basis. Some shelters provide a field work service to women who have left the shelter but who require continued support and visitation to prevent their return to the shelter.

The Crisis Intervention Unit

A crisis intervention service was established in May 1985. The service is statewide and is primarily directed at providing a crisis service (in co-operation with the police) to victims of domestic violence and their families.

The service aims to provide crisis counselling and intervention in domestic violence situations in order to safeguard the immediate well being of family members. A follow up service provides appropriate referral and advice to ensure that people receive the maximum available assistance.

Crisis Intervention Workers are employed in Hobart, Launceston and Burnie to operate a mobile service to people in domestic violence situations in their own homes. The service accepts referrals from three sources; the Police, other welfare agencies, and self referrals. Although the service does not operate on a 24 hour basis, shifts are planned to operate at peak periods of domestic violence as indicated by police statistics. Crisis Workers are available until midnight seven nights a week and a follow-up service operates during normal office hours.

During the first 8 months (June 1985–January 1986) Crisis Intervention Workers attended approximately 540 crisis calls relating to domestic violence around the State. 66 per cent of those calls were referred by the Police, 19 per cent from other agencies, and 15 per cent were self referred. Approximately 85 per cent of those calls related to male partners or ex-partners assaulting their wives or defacto wives. A small number related to adult 'children' assaulting parents, sibling assault, or wives assaulting husbands or ex-husbands.

Neighbourhood Houses

The Neighbourhood Houses Program is a joint investment by government and local communities in the planning, development and management of community services at the neighbourhood level. Houses provide a wide range of community services such as recreational activities, child care, fitness classes, life skill classes, adult education, meeting facilities, community newsletters, effective parenting courses, food co-operatives and ante-natal clinics.

Neighbourhood Houses are managed by representatives of local communities and not by single organisations. Although Houses may employ a paid co-ordinator to assist in management of the day-to-day activities of Houses, most of the projects and activities are run by local residents. In this way, Houses can take advantage of people with a broad range of skills and backgrounds, promote the development of services relevant to the needs of the local area and be more accountable to the communities they serve.

The aim of Neighbourhood Houses is to assist families and individuals to identify and solve their own problems, reduce dependence on formal government services, establish and strengthen local community networks and provide people with a greater opportunity to control their own lives.

11.24 Tasmanian Government Grants to Neighbourhood Houses, 1984–85

House	*$*
North	
Bridgewater Neighbourhood House	6 020
Chigwell Neighbourhood House Committee	1 500
Clarendon Vale Neighbourhood Centre	10 800
Clarence Council for Clarendon Vale Neighbourhood Centre	2 080
Gagebrook Neighbourhood Centre	13 020
Geeveston Neighbourhood House	12 720
Goodwood Community Centre	11 750
Maranoa Heights Community Centre	10 360
Midway Point Neighbourhood Centre	11 450
Risdon Vale Neighbourhood Centre	8 600
Richmond Neighbourhood Centre	6 220
Rokeby Neighbourhood Centre	9 600
Warrane/Mornington Neighbourhood Centre	4 675
South	
Dover Neighbourhood House	13 880
George Town Ladies' Leisure Centre	3 420
Ravenswood Neighbourhood House	10 620
Rocherlea Community House	12 985
Social Action Group, George Town	5 690
St. Helens Neighbourhood House	12 480
North-West	
Acton/Shorewell Community House	9 910
Highfield Neighbourhood House	13 233
Rosebery Neighbourhood House	11 580
Savage River Neighbourhood House	13 125
Total	215 718

The provision of child services has facilitaed woemn's involvement in Neighbourhood Houses. Women comprise the largest grup of users of Neighbourhood Houses and most Houses are

managed by women. Problems of isolation and idsadvantage caused by geographic location, inadequate income, poor transport services and lack of community services are often most intensely felt by women, the aged and the unemployed. Neighbourhood Houses provide women especially with opportunities to reduce individual isolation, widen their range of interests and help them develop skills which can be used in the development of a better environment for themselves and for the benefit of the wider community.

There are 22 Neighbourhood Houses in various stages of development throughout the State. Most Houses average 200 contacts per week.

11.2.4 Residential Care for the Aged and Disabled

Under the *National Health Act* and the *Nursing Homes Assistance Act*, the Commonwealth provides recurrent subsidies to nursing homes for the aged and disabled. There are 51 nursing homes in Tasmania providing 2400 beds for which the Commonwealth provided $22.63 million in 1984–85. There are also 22 hostels offering 716 beds which in 1984–85 received $1.2 million in Commonwealth subsidies.

In addition the *Aged or Disabled Persons Homes Act* 1974 of the Commonwealth provides for capital grants to non-profit organisations and local government bodies. During 1984–85 grants totalling $1.3 million were paid in Tasmania.

11.3 VOLUNTARY AGENCIES

State Government grants to voluntary welfare agencies in 1984–85 totalled just over $2.3 million or just under 20 per cent of the State's total expenditure on welfare. This is in recognition that many services are more appropriately administered and provided by non-government organisations. Indeed, as previously noted, voluntary organisations have always played an important part in welfare provision.

The Non-Government Perspective

An article contributed by TASCOSS

The non-government community services sector is an integral part of our world, and is constantly adjusting to function in a changing world. The complexity of our society demands that an array of options be available to all people. The community sector must be recognised as a valid conduit, influencing government service provision, and identifying needs and solutions.

Perhaps the best way to highlight the differences between the non-government welfare section and its equivalent within government is to look at specific topics such as security of funding, career paths, security of tenure, extent of paid and unpaid overtime, extent of volunteerism, worker burnout or stress, nature and appropriateness of any off-the-job training, extent of union coverage, awards and conditions.

Security of Funding

An examination of funded agencies under the Sundry Social Services Grants system administered by the State Government of Community Welfare shows significant developments within the non-government sector.

- The nature of welfare provision has changed. The traditional concept of welfare organisations as being institutional, religious or philosophically-based bodies, is being superseded, in number terms at least, by the idea of specific interest, self-help and localised agencies catering to the diverse needs of the community.
- Government is responsive to innovative programs which originate from welfare 'clients'.
- There is an increasingly equitable regional distribution of resources.
- With increasing pressure on specific services, e.g. accommodation services, separate funding sources are being developed, and are responding to the needs expressed by the non-government sector.

Employment

- Expansion and contraction of employment (and hence service delivery) is to a very high degree dictated by the extent of public funding.
- Funding is frequently unpredictable, making planning a hazardous task. (e.g. no one foresaw that pre-school funding would be cut and the precise effects of the cuts remain unclear.)
- There are delays in receipt of funding and few other resources to get by on until funds arrive.
- The extent to which the community-based services can fund themselves (e.g. fee for service) is restricted as characteristically services are targetted to those least able to pay.
- Many employees have no security of tenure.
- Many employees have short-term tenure, (e.g. the increasing use of contract work, short-term job creation programs etc).
- Many people "donate" hours of unpaid overtime every week, e.g. (CYSS workers and home care workers).
- Some areas of the sector rely on volunteer or unpaid labour, e.g. child care.

The last few months have highlighted some of the problems that can come about when a government changes an act of parliament regulating an area of rapid growth and change without consulting service providers and users.

The recent changes to the *Child Care Act* stirred up concern and confusion and showed the need for some very fast, in-depth consultation throughout the whole spectrum of care providers and care users.

Training

- In some areas, training is ad hoc or non-existent.
- Funding frequently makes no allowance for training.
- Staff resources are often insufficient to provide on-the-job training, i.e.
  - — staff are themselves temporary or short-term;
  - — they may be unqualified or untrained;
  - — their priority (or that of the organisation or service) is service delivery; and
  - — staff are over-worked.
- In other areas, training is seen as inappropriate, (e.g. neighbourhood centres which prefer to draw on existing skills and resources from within the community).

With the introduction of short-term employment, projects such as the Community Employment Programme (which allocated $7.7 m to the community sector since its inception) comes the need for increased sophistication within community groups. For example, groups must be able to understand incorporation and its implications and conditions, employment procedures including awards, staff management and training, auditing and accountability.

Also, when services established through CEP funding are no longer supported by full time employees, community groups must adapt or close services, even if needs are identified and clients have developed a dependency on the staff or the service.

Industrial Issues

In some areas, union coverage is still being contested, such as in home care.

In others, numerous unions cover the one service area.

Many workers are not members of unions because of:

- — the ethic of voluntarism
- — confusion over which union they should belong to.

Markedly different conditions for employees within one centre can cause resentment, e.g. four weeks holiday for one group and ten weeks for another, working side-by-side in child care centres.

Many areas are award free.

Volunteers

The increasing use of volunteers in the community-based part of the sector over the past two decades suggests that the issue of unpaid labour is central to an understanding of the nature of the community services industry.

As yet, there is no comprehensive survey of the agencies in and activities of community-based services. However, a final report released in 1984 estimates that there were between 26 000 and 49 000 welfare agencies operating in Australia in 1981. Most of these had been established since 1962, and approximately 50 per cent had been set up in the last decade. These data suggest that the long tradition of volunteer service in the charity, then non-government and more recently community based sector has been strengthened during the past twenty years.

If the information on the number of employees working in community based services is added to the number of volunteers, it is clear that we are dealing with a work force of considerable magnitude, far larger than that indicated by official employment figures which ignore most forms of unpaid work. Similar patterns may well apply to other parts of the community services industry as well as to other industries, though the allocation of unpaid tasks by sex may well differ. What seems clear is the need to consider the role of unpaid labour in the community-based part of the sector which has remained invisible because it does not count as 'real' work.

11.4 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Occasional Paper 1984/3, *Aged Persons in Tasmania*, May 1984.

Social Report, Tasmania, 1985, (4101.6), irregular.

ABS Publications Produced by the Canberra Office:

Australia's Aged Population, 1982 (4109.0), irregular.

Projections of the Populations of Australia, States and Territories, 1984 to 2021, (3222.0).

Adoptions, Australia, (4406.0), annual.

Ex-service Personnel and Widows, Australia, (4404.0), irregular.

Children in Care, Australia, (4410.0), annual.

Other Publications:

Repatriation Commission, *Annual Report*, 1984–85.

Department of Social Security, *Annual Report*, 1984–85.

Department of Community Services, *Report*.

Budget Statements 1985–86, *1985–86 Budget Paper No. 1*.

Brown, J.C., *Poverty is not a Crime*, The Development of Social Services in Tasmania, 1803–1900, Foot and Playsted, Pty. Ltd., Launceston, 1972.

Caves, R.E. and Krause, L.B. *The Australian Economy*, A View from the North, George Allen and Urwin, Australia, 1984.

Chapter 12

ENERGY

		Page No.
12.1	**Primary Energy Consumption**	199
12.1.1	Consumers	199
12.1.2	Energy Sources	199
12.2	**Petroleum**	200
12.2.1	Bass Strait's New Burst of Energy	200
12.3	**Electricity**	201
12.3.1	Construction Projects	202
12.3.2	Future Expansion	203
12.3.3	Energy Planning	204
12.4	**Coal**	205
12.5	**Wood**	205
12.6	**Energy Research**	205
12.6.1	Hydro-Electric Commission	205
12.6.2	Forestry Commission	206
12.6.3	University of Tasmania	206
12.6.4	Hobart Technical College	207
12.6.5	Private Energy Research	207
12.7	**Energy Management**	208
12.7.1	Hydro-Electric Commission	208
12.7.2	Forestry Commission	208
12.8	**References**	208

Chapter 12

ENERGY

12.1 PRIMARY ENERGY CONSUMPTION

In 1983–84 primary energy consumption in Tasmania, at almost 84 petajoules, had appeared to have levelled off after two decades of steady increase. As in other States, the rate of increase in energy consumption declined following disruption in oil supplies and steep increases in prices in the seventies.

12.1 Total Energy Consumption, Tasmania and Australia (Petajoules)

Year	*Tasmania*	*Australia*
1960–61	39.1	1336.6
1970–71	65.5	2210.3
1977–78	77.4	2973.8
1978–79	81.3	3044.5
1980–81	81.9	3139.4
1981–82	84.9	3230.1
1982–83	80.7	3110.2
1983–84	83.7(*p*)	3224.2(*p*)

Source: Department of Resources and Energy

Energy usage in Tasmania for the year 1983–84 was 2.6 per cent of total Australian consumption, less per head of population than all States except New South Wales and South Australia.

12.2 Total Energy Consumption Per Head, by State, 1983–84 (*p*) (Gigajoules)

NSW	190.4
Vic.	225.2
Qld	233.4
WA	231.7
SA	191.3
Tas.	192.5

Source: Department of Resources and Energy

12.1.1 Consumers

The manufacturing industry is the largest consumer of energy, using 40 per cent in 1983–84, of which basic metal production used almost half. The transport sector accounted for 24 per cent and the residential sector, 14 per cent.

12.3 Energy Consumption, Tasmania (Petajoules)

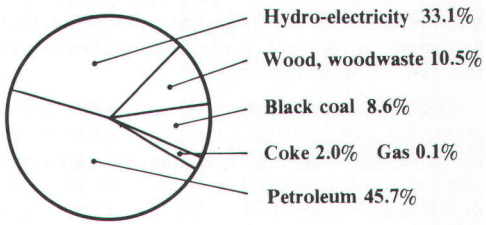
Sector	*1982–83*	*1983–84*
Industry (*a*)		
Agriculture	1.9	1.9
Mining	4.3	4.1
Manufacturing	33.3	33.5
Electricity, gas and water	4.1	5.5
Construction	1.0	1.1
Wholesale retail trade	1.9	2.0
Transport and storage	19.1	20.5
Communications, finance and business services	0.3	0.3
Public administration	0.3	0.3
Community services	0.9	0.8
Entertainment and personal services	0.5	0.5
Residential	11.8	11.9
Lubes, bitumen and solvents	1.2	1.3
Total	80.7	83.7

Source: Department of Resources and Energy

12.1.2 Energy Sources

Most of Tasmania's energy needs have been met from imported petroleum products, and hydro-electricity. Small amounts, although increasing in more recent years, have been derived from black coal, wood and coke.

Energy Sources Tasmania 1983–84



12.2 PETROLEUM

Australia imports about 25 per cent of its crude oil requirements and prices its locally produced crude oil at world parity. This has resulted in a marked stabilization in the consumption of all petroleum products in recent years. In Tasmania, consumption has fallen twelve per cent since 1980–81.

12.4 Sales of Petroleum Products, Tasmania (Megalitres)

1980–81	1044
1981–82	1121
1982–83	908
1983–84	916
1984–85	915

Source: Department of Resources and Energy

All Tasmania's petroleum is imported from interstate refineries to bulk depots at Hobart, Bell Bay and Devonport. Despite early hopes for finding sufficient oil in Bass Strait to meet the State's needs, tests have not found sufficient deposits to be commercially viable. At least that was the case until a new discovery, as Mr Andrew Horton reported in the accompanying article reprinted from *The Islander*, in 1985 provided renewed hope.

12.2.1 Bass Strait's New Burst of Energy

by Andrew Horton
Reprinted from *The Islander*, Number 2, November, 1985

The discovery of oil and gas in Bass Strait has put Tasmania on the national petroleum map.

The flow from Yolla 1, about 150 kilometres offshore from Burnie, has proved to the consortium which is developing the field in the Bass Basin lease areas that the expensive search for black gold—Texas tea—has not been in vain.

It has also proved that exploration areas which have already been picked over are worth further examination when new and more sophisticated technology becomes available.

The Bass Basin was exhaustively tested by Esso-BHP in the late 1960s and through the 1970s, without finding enough oil or gas to be commercially viable. Since then, that company's senior executives have probably pondered about the wisdom of pulling out.

The present consortium is headed by Amoco Australia. The other partners are Cue Petroleum NL and Bass Strait Oil & Gas NL. The consortium was formed after a former Esso geologist and Hobart resident Mr John Davidson began to believe that the area was worth a much closer examination.

The present success at Yolla 1 is linked to Mr Davidson's knowledge of the Bass Basin lease areas and to his persistence in seeking partners who shared his enthusiasm.

When Amoco Australia read Mr Davidson's data they must have recognised the potential which existed in the old lease-area. It costs hundreds of thousands of dollars a day to operate a drilling ship and to deploy manpower in remote areas, and the decision to go ahead is taken only after careful assessment of the data.

But now, after months of test drilling, work at Yolla 1 has been suspended. In exploration terms this means that the area has been put on reserve for further testing and for commercial development.

The consortium is after other fish in the ocean, even though the flow of 300 barrels a day from Yolla 1 has been confirmed using only a small choke (drilling hole), and the known reserves of gas are already enough to fire a 200-megawatt power-station.

Seismic testing for a possible test-hole at Yolla 2 has been under way for the past five weeks, and the Tilana test-hole near Yolla 1 has been tested and evaluated using the oilrig Diamond M Epoch. The consortium now has its eyes on the Pelican field in the T22P lease-area.

If all or some of these test-holes are proved to have commercial quantities of oil and gas, their potential is enormous. In order to maintain its 90-per cent self-sufficiency Australia must continue its search for reserves of light crude.

The possibility of a new commercial field in Bass Strait is creating tremendous interest in the industry at a time when the traditional wells in he Gippsland field off Victoria are at peak production.

When the Gippsland fields start to decline as the major producer of light crude there will be a frantic search for new supplies in commercial quantities. Bass Basin may well be the solution.

The prospect of Australia being a net importer of light crude has sent many shudders down the spine of an industry which is already resigned to the fact that it has to import heavy crude from countries where oil politics often override rational economic judgment.

The discovery at Yolla 1 is of major importance to Tasmania. The well has the capacity to produce between 2500 and 3000 barrels of oil a day, a flow which is equal to that of the best Gippsland wells once the small choke is opened.

The Minister for Mines, Mr Roger Groom, has indicated his government's enthusiasm for having the oil and gas piped to the North-West Coast. And while it isn't known how much money that operation would cost, Mr Groom is on record as having pledged any help which the government can give—presumably help in the form of dollars and in the form of advice on markets for oil and gas in Tasmania.

Mr Groom wants more than simply the royalties which would accrue from each barrel. The fact that Bass Basin is inside Tasmania's border means that the State has an overwhelming case for getting the biggest slice of the action.

Of course there are difficulties. The consortium has said that its first port of call in selling its oil will be the Tasmanian Government. But this whole approach assumes that Tasmania *needs* the amount of oil and gas which the field has the potential to produce.

A compromise might be made: provide Tasmania with enough oil for its requirements, and sell the rest to the other States. These avenues will be explored as more positive information flows from the analysis of data gathered this year and in 1986.

There are other major reasons why the State Government is keen to be involved with the development of the Bass Basin:

Firstly, because of the onshore physical infrastructure required to take the Bass Basin oil, such involvement will provide potential for a whole new industry in the State.

Secondly there may be a spin-off in terms of jobs and possibly in terms of ancillary industries which might be attracted to the State if a big source of oil and gas was available and was backed by guaranteed reserves.

It's an ideal project which the Tasmanian Development Authority could exploit interstate. The TDA has not been involved in the Bass Basin project, but that situation is likely to change over the next few months.

The gas reserves in the basin are a slightly different proposition. While oil is the ultimate objective, gas is the cream on the cake. It's a side benefit which the State could capitalise on heavily as an alternative to hydro-electricity.

While the Hydro-Electric Commission might not take kindly to the upstaging of its traditional source of energy—water—by huge supplies of gas, it has acknowledged the significance of the Yolla 1 discovery and will undoubtedly watch with interest as the consortium proceeds to test for a possible Yolla 2 and then move on to the Pelican field by early next year.

Of course the litmus-test will be whether the product can be brought to shore at a price that's competitive with hydro power.

12.3 ELECTRICITY

Tasmania's electricity requirements are provided by the Hydro-Electric Commission from a system based almost entirely on hydro installations. The total installed generator capacity at June 1985 was 1.940 million kW of which 87 per cent (1.7 million kW) was supplied by an integrated hydro network. An oil-fired thermal station of 240 000 kW is located at Bell Bay.

During the 1984–85 financial year total energy generated was a record 8194 million kWh, an increase of 1.7 per cent over 1983–84; total sales amounted to 7503.6 million kWh of which almost 67 per cent was taken by the major industrial sector.

12.5 Electricity Sales, 1984–85, Tasmania (million kWh)

Residential	905.2
Industrial	448.4
Hot water	560.7
Off peak	267.2
Lighting	110.9
Commercial	184.3
Bulk commercial	85.5
Major industrial	12.3
HEC villages, unread meters	4943.0
Total	7503.6

Source: Hydro-Electric Commission Report

Consumption by the major industrial sector in 1984–85 rose by 1.9 per cent over the previous year while the retail load measured at major sub-stations was up by 2.6 per cent. The increased demand followed an increase of 1.9 per cent in customers, to 199 197.

12.6 Electricity Consumers, Tasmania

Consumers	*1984*	*1985*
Residential	158 448	161 755
Public utilities	4 303	4 533
Industrial	16 637	16 692
Commercial	14 594	14 598
Major industrial	17	17
Miscellaneous	1 388	1 602
Total	195 387	199 197

Source: Hydro-Electric Commission Report

For the first year in the past nine the yield from catchment rain and snow was better than the long term average. This enabled water storages to recover by about 10 per cent to nearly 41 per cent at 30 June.

Financially it was a pleasing year for the Hydro-Electric Commission, with a profit of $4.475 million being posted after losses in the two previous years. Income for the year at $238.160 million was 10.4 per cent higher than the previous

year. Retail customers contributed $157.529 million while sales to the major industrial sector totalled $77.454 million; miscellaneous income amounted to $3.177 million. Operating expenses increased by 6.7 per cent to total $72.513 million while financial charges rose by 11.0 per cent to $124.710 million. The cost of fuel for the Bell Bay thermal station was $11.021 million which was charged against the Fuel Cost Equalisation Provision. A further instalment of $6 million was credited to the Provision during the year.

A total of $6.745 million was paid to the State Treasury as a 5 per cent surcharge on retail electricity accounts, an increase of 13 per cent over the previous year.

During the year $173.045 million was spent on capital works bringing the total capital expenditure to $1 580.624 million.

12.7 Hydro-Electric Commission Capital Expenditure, 1984–85

Project	*$ million*
Pieman River Power Development	88.075
Anthony Power Development	15.870
King River Power Development	30.943
Gordon Power Station, No. 3 Machine	4.587
Raising Great Lake	0.174
Bass Strait Islands Power Stations and Reticulation	2.986
Power Station Extensions	1.039
Substations	2.916
Transmission Lines	2.046
Lake Margaret Power Scheme	5.000
Distribution System and Services	10.386
Sundry Buildings	1.000
Stores, General Plant, etc.	6.581
Construction Equipment	1.442
Total	173.045

Source: Hydro-Electric Commission Report

The capital works construction spotlight remained firmly on the Pieman, King and Anthony power developments. Together, these developments involve both the largest underground engineering construction activity undertaken in Australia during the past 30 years and the formation of considerable length of roads providing tourist access through spectacular country.

On-site employment on power developments declined from 1210 to 1135 at Pieman but the build up at Queenstown for the King River and Anthony Power Developments from 500 to 620 ensured a steady level of field workforce during 1984–85.

12.3.1 Construction Projects

Lower Pieman

At Lower Pieman the task of placing about 6 million tonnes of rockfill forming Reece Dam was completed, and a start was made on the concrete facing of the dam. The rockfill placement was accomplished 13 weeks ahead of schedule. As a tribute to one who for many years advanced the development of the State's water power resources, the final placement of rockfill was carried out on 17 December 1985 in the presence of Mr Eric Reece, Premier of Tasmania from 1958 to 1969 and again from 1972 to 1975.



Reece Power Station and Dam nearing completion.

Concrete placement for the dam face started on a three shift basis in June 1985. By year's end 25 per cent of the face had been completed. Plinth grouting was 75 per cent complete and about 22 per cent of the curtain grouting of the right abutment was complete. A shortage of carpenters limited progress in several areas, principally on concreting the spillway which, as a result, reached only two-thirds completion. The two intake structures progressed steadily and by 30 June both were more than half complete. The associated power tunnels were fully grouted and painting of the steel lining of one of them was completed.

The design, supply and installation of plant and equipment for the power station proceeded to program ready for commissioning in 1986. Deliveries were completed for the two 115.6 MW generating sets, parts of which were manufactured in the Commission's workshops at Moonah. By 30 June 1985 both turbine spiral casings had been assembled and tested.

In the Lower Pieman storage area, clearing of the lake foreshore from the dam, to about five km upstream was almost complete. Clearing near the town of Rosebery was about 50 per cent complete and salvage of timber was well advanced under the general management of the Forestry Commission. It was anticipated that all timber that could be harvested would be salvaged before flooding.

King River

On the King River Power Development, designs for Crotty Dam, King Power Tunnel and King Power Station allowed the location of the structures to be finalised. Hydraulic model testing of the spillway was completed.

Crotty Camp was further enlarged to accommodate 330 people. A fresh water supply was installed, camp roads sealed and electricity supply was connected from Queenstown. At Lynchford Camp all 57 caravan units were delivered. At Queenstown, construction headquarters for the project, 15 existing houses were bought and refurbished and 11 new homes were under construction.

The four wheel drive track to Mt Jukes Saddle was improved and construction of Mt Jukes Road began. When completed, this road will link Crotty Dam and King Power Station, about six km away.



The site of the Crotty Dam for the King River Power Development.

At Crotty damsite a right bank access road from the Kelly Basin Road was constructed and sluicing for the right bank plinth line was completed. The gate shaft bench for the headrace tunnel was excavated and stabilised with gunite. At the tunnel portal level the works area for 'rubber' mounted tunnelling was constructed and fill was being placed for the 'rail-bench' works area. Rail tunnelling was scheduled to begin in February 1986.

Specifications for the procurement of the 143 MW generating set and associated equipment for the power station were issued.

The 6.6 km Newall Road was virtually completed. At the King River the bridge abutments were exposed and, despite frequent flooding, a plinth for the central pier was concreted in the river.

Anthony

Roadworks dominated the Anthony Power Development. Nearly 30 km of road design, including entrances from the southern and northern ends of the development, were issued for construction.

The first three kilometres of Anthony Road North was sealed and from the south, the road advanced 10.5 km to reach Newton Creek. Access roads to the Newton Pump Station and the works area were 70 per cent complete.

Stripping and sluicing of the White Spure, Henty, and Newton damsites progressed during the year.

Specifications for procurement of the 84 MW generating set and associated equipment for the power station were issued.

Gordon Power Station — 3rd Machine

At the existing Gordon underground power station, preparations began for the installation of a third 144 MW hydro-electric generating set. The turbine was received and the generator is due for delivery in February 1986. The work is programmed for completion in late 1987.

Alternative Works Projects

One major road project, Strahan-Henty, was completed under the Commonwealth-funded alternative works program and excellent progress was made with another—the Heemskirk road, linking Zeehan and Lower Pieman. Much of the Heemskirk road was sealed and the balance will be sealed next summer. Bridges over Piney Creek and Heemskirk River were completed. Commonwealth funds, part of the financial agreement drawn up between State and Commonwealth Governments following work on the Gordon River Power Development Stage 2 being halted, were also used for an extensive program of underground supply works in several cities and towns.

12.3.2 Future Expansion

A further review of the long term forecast is in progress. This review is primarily intended as a basis for planning the further power developments that will be required to meet growing demands after the early 1990's. Although the work is not complete it appears likely that the load forecast in 1983 for the 1990's will eventuate two or three years later than indicated in the 1983 forecast.



Roadworks for the Anthony Power Development.

Any such deferment of load would enable the development of the remaining economic hydro resources to precede further thermal development.

The addition to the generating system of Reece Power Station in 1986 and the King River and Anthony Power Developments in the early 1990's will together meet the forecast load with reliability and economy for about the next ten years.

A continuing program of investigations is aimed at deriving the best development program for the mid-1990's and beyond.

The hydro potential remaining undeveloped outside the World Heritage area is likely to play an important part in any future development. Possible schemes under active examination during the year included Sailor Jack, Que, Lower Pieman tributaries and Lower Henty Schemes. Not all of these now appear to be economic.

Preliminary investigations have been undertaken on the potential redevelopment of the Lake Margaret Scheme (bought by the Commission during the year from Mt Lyell Mining and Railway Company) and a possible addition to Butlers Gorge Power Station.

Further data have been collected for a possible coal-fired power station in the Fingal Valley, with research being assisted by the consulting engineers Merz and McLellan and Partners. Those investigations have been completed to the extent that it can be confidently predicted that sufficient coal exists for the economic development of a 400 MW power station; operational cost levels had been determined; and preliminary environmental studies were carried out.

Tenders were again called world-wide for a wind generating plant for King Island. The tenders were under study at year's end.

12.3.3 Energy Planning

In line with the Government's requirements for the Commission to undertake a wide role in the planning for all energy resources as well as electricity, extensive studies were initiated to define the extent and relative costs of energy resources available to the State and the likely levels of future requirements.

Work is in progress in the preparation of a series of reports on the individual energy resources and requirements. Initially this work has concentrated on those areas with the potential to reduce the dependence of the State on imported oil fuels. To the forefront has been an examination of the prospects of wood and wood wastes contributing to a greater extent to meeting energy requirements.

Work was also in progress on the examination of shale oil treatment and the extraction of liquid fuels from vegetable oils.

The Commission was represented on a number of relevant national committees notably, National Petroleum Advisory Committee, National Fuels Emergency Consultative Committee and the National Oil Supplies Advisory Committee. As part of oil fuels emergency planning the Commission monitors stocks of oil products in the State as a basis for advice to Government.

12.4 COAL

Approximately 10 per cent of Tasmania's energy is derived from coal. Although substantial deposits exist throughout Tasmania, particularly in the Fingal Valley in the north-east, the quality is not as high as for example, NSW coal. Nevertheless, over recent years, coal has been increasingly used as a fuel source for industry.

The Cornwall coal company, the State's only producer, is currently producing and selling 350 000 tonnes per annum from the Duncan colliery near Fingal and the Blackwood colliery at Mt Nicholas, near Cornwall. It supplies coal to Associated Pulp and Paper Mills Ltd, Australian Newsprint Mills Ltd, Goliath Portland Cement Company Ltd, Edgell-Birdseye (Division of Petersville), Wander (Australia) Pty Ltd, Tasmanian Breweries (Cascade), Cadbury Schweppes Pty Ltd, Royal Derwent Hospital, and Tioxide Australia Pty Ltd.

12.5 WOOD

The use of wood as an energy source for domestic heating has been growing steadily over recent years. In 1976 total domestic wood use in Hobart homes was an estimated 1.24PJ; by 1980 this had increased 6.5 per cent to 1.32PJ. In 1980, 12 726 homes in Hobart had wood-fired space heating; in 1985 an estimated 88 000 homes in Tasmania were using firewood or coal for domestic heating.

12.8 Overseas Imports, Solid Fuel Space Heaters, Tasmania

Year	*Number*	*Value ($'000)*
1981–82	3645	755
1982–83	6271	1576
1983–84	4848	1502
1984–85	3838	1352

This increasing trend has been linked to rising oil prices; it may also be at least partly due to recent improvements in the efficiency of wood burning heaters. Certainly, import figures show a demand for solid fuel space heaters with New Zealand being the main supplier.

The Forestry Commission has estimated that the demand for firewood is at least 300 000 tonnes a year, although it could be substantially more since it is relatively easy, and common, for consumers to take their trailers to the bush and collect their own. Indeed firewood has been in such demand that stocks in Launceston wood yards ran out during the 1984 winter.

To date, supply at source (if not always in the yards) is considered to be plentiful, although at some distance from the major population centres. It has been estimated that at least two million tonnes of logging residues per year are available, mainly in State forests some 50 to 100 km from Hobart and Launceston. The Forestry Commission provides licences permitting the collection of firewood from Crown land. In addition the Commission provides designated 'free firewood' areas for advertised periods during the summer as part of a campaign to educate consumers to collect or buy their firewood in the summer when it is easier and cheaper to collect.

Firewood, when compared with other fuels on a cost per unit of energy basis, is the least expensive. A good wood heater provides heat at a third of the cost of oil and electricity and a quarter of the cost of LP gas.

12.6 ENERGY RESEARCH

12.6.1 Hydro-Electric Commission

Wind Energy

A research project on the use of wind energy which is mainly funded by the National Energy Research Development and Demonstration Council (NERDDC) was continued. The initial NERDDC grant was extended to cover studies into the technical and operational aspects of including significant amounts of wind generation into a predominantly hydro system. This research project complements the Commission's own continuing investigations of the potential of the

12.9 The Cost of Firewood Compared to other Fuels, 1985

Type of fuel	*Calorific value per unit*	*Typical cost per unit delivered*	*Typical price per unit of energy*	*Efficiency of fuel use*	*Cost per unit useful energy*
Air dry fire-wood. Good wood heater	16MJ/kg	$40.00/tonne	0.25¢/MJ	50–70%	0.42–0.5¢
Air dry fire-wood. Open fire	16MJ/kg	$40.00/tonne	0.25¢/MJ	10–20%	1.25–2.5¢
Heating oil	38MJ/kg	44¢/litre	1.15¢/MJ	75%	1.53¢
L.P. gas	50MJ/kg	78¢/kg	1.56¢/MJ	75%	2.08¢
Electricity	3.6MJ/kWh	5.66¢/kWh	1.57¢/MJ	100%	1.57¢

Source: *Firewood*, Forestry Commission Tasmania, 1985.

wind energy resource. During the year the wind monitoring program was extended to sites on the West Coast, and North and North East Coasts. Studies were also made into the behaviour of a windfarm in the generating system.

Solar Electric Water Heating

The continuing program of field and laboratory testing indicated that, in suitable locations, the solar contribution could be sufficient to replace up to 45 per cent of the energy needed for normal domestic hot water heating. Two new systems and one existing system were evaluated at the Moonah Laboratories. Research on King Island was completed and a report was being prepared at the end of the year.

Power Use Survey

A draft report was prepared on the eight year survey conducted by the Australian Housing Research Council, the State Housing Department and the Commission. The project concerned the energy requirements of and use by domestic customers in public housing in Tasmania, and their response to energy conservation measures.

Energy Conservation

A program is being undertaken involving monitoring the effects of energy saving methods introduced into United Milk Tasmania's Devonport works following advice from the Commission's Energy Management Centre. The program is being funded by the Department of Resources and Energy.

Wood Energy Systems

The performance of about twelve existing wood energy systems is being assessed as the basis for putting together a demonstration information package aimed at providing information to potential users. The project is being funded in part by a grant of $95 000 from the NERDDC and will take about a year to complete.

12.6.2 Forestry Commission

The Forestry Commission recognises the value of wood as a renewable form of stored energy. To ensure wood fuels can contribute to Tasmania's energy supplies (both domestic and industrial), locally based employment, and economic activity, a number of measures have been initiated, as follows:

Industrial Fuelwood

To encourage industrial fuelwood demand, and to demonstrate modern wood combustion technology to industry, the Forestry Commission obtained, and is administering, a $95 000 NERDDC grant. The grant is to be used to assist a company to convert an oil fired boiler to wood firing.

The objectives are to demonstrate a fuelwood supply system and to cost and technically evaluate boiler performance when fired by wood instead of oil.

Fuelwood/Firewood Recovery Trials

Future firewood supplies will increasingly be drawn from integrated harvesting operations. The Commission is establishing trials, in conjunction with industry, to obtain costs of firewood recovery from such operations, and to develop new recovery techniques.

With more wood available for firewood in log form there are opportunities to mechanise the cross cutting and splitting operation to contain costs. The Commission is working closely with the developer of prototype equipment to foster this innovation.

12.6.3 University of Tasmania — The Centre for Environmental Studies

The Centre for Environmental Studies at the University is a multi-disciplinary research and post-graduate teaching centre which includes energy research among its range of activities. This research is centred upon use of fuelwood, and energy conservation.

Fuelwood Research

In 1978 studies of fuelwood use in Tasmania were commenced following more general studies of the Tasmanian energy system. Two years later, some preliminary performance tests on domestic wood-burning heaters began. In 1981 the Centre's Home Heating Laboratory was established. Fuelwood research is directed at both issues in Australia as well as issues in developing countries. Recent projects with local application have included:

- a review of information available on logging residue quantities in the Tasmanian southern forests;
- construction of a sophisticated calorimetry room, designed specifically for domestic heater testing (this project was undertaken jointly with the University's Department of Civil and Mechanical Engineering);
- commercial testing of wood heaters for Australian and overseas manufacturers;
- review of wood heater safety literature, a study of Tasmanian Fire Department records, and a survey of heater installations in Hobart;
- an assessment of heater safety test methods to assist with the establishment of an Australian standard for heater installations;
- testing of heater flue systems, hearth designs and heater clearance specifications;
- preliminary measurements of emissions from some commercially available wood heaters (in co-operation with the Tasmanian Department of the Environment);

Energy Conservation

The Centre is involved in several research projects involving energy conservation including:

- Energy Audits. The technique of energy auditing is being researched with emphasis on the presentation of economic benefits and costs for management.
- Domestic Energy Use. Domestic energy conservation is being investigated with studies on domestic insulation, low energy household electric appliances (a research project on appliance energy labelling), and some limited work on solar hot water systems; and
- Fuel Conservation. A study looking into the options for restructuring motor vehicle taxes and charges to encourage fuel conservation.

Other Studies

A number of minor projects are underway at the Centre including some work on wind and photovoltaic electricity supply for rural households, energy forecasting techniques, energy policy alcohol fuels. None of these has been developed to the extent of the fuelwood and conservation programs.

Department of Chemistry

Research is also being undertaken by Professor Larkins, head of the Department of Chemistry, principally in the field of energy chemistry, particularly in relation to the production of synthetic liquid fuels and the characterisation of catalyst systems for energy conversion processes. The work involves research collaborations with scientists in industrial, CSIRO and university laboratories and is funded from various sources including the national Energy Research Development and Demonstration Council, ARGS, CSIRO and industry. The major projects currently being undertaken are listed below.

Hydroliquefaction of Victorian Brown Coal

Research relating to kinetic and mechanistic studies on the liquefaction of low rank coals particularly using synthesis gas.

Structure and Reactivity of Australian Coals

A program of research principally designed to use such physical techniques as Fourier transform infrared spectroscopy, photoelectron spectroscopy and NMR spectroscopy is currently in progress to further elucidate our understanding of the chemical characteristics of Australian coals.

Upgrading of Coal Derived Liquids

A new program of work is planned to develop suitable catalysts for the upgrading of liquids derived from the conversion of brown coal.

Catalytic Conversion of Light Hydrocarbons to Liquid Fuels

This project is a collaboration with scientists at the BHP Melbourne research laboratories and is funded for a two year period under the NERDDC program. The University of Tasmania subprogram is part of a major research effort by BHP to establish new routes for the conversion of natural gas (methane) to transport fuels.

Liquid Fuel Production via Slurry Phase Fischer-Tropsch Processes

This research is being undertaken in conjunction with CSIRO Division of Energy Chemistry, Lucas Heights, with support from the National Research Fellowship Scheme (National Interest Category).

Characterisation of Adsorbed Species on Catalyst Surfaces

This program is designed to obtain information at a fundamental level on the characteristics of adsorbed species on catalyst surfaces.

Direct Methane Conversion to Liquid Hydrocarbons

This project is designed to develop and evaluate catalysts which may be suitable for the direct conversion of methane. At present catalysts suitable for the partial oxidation of methane are being studied.

12.6.4 Hobart Technical College — Claremont Annexe

Staff and students at the annexe have been involved in a number of research projects involving solar energy. The two major projects are:

- the setting up of a demonstration and experimental facility to test conventional solar collectors outdoors under Tasmanian conditions. This will allow the thermal characteristics of the collectors to be monitored, and provide information on their installation and maintenance; and
- a working demonstration of a solar floor coil system which allows a number of test parameters to be measured. The main aim of the project is to show the effectiveness of a concrete floor as a storage medium and demonstrate the maximum effective solar contribution that can be made with a system of this kind.

12.6.5 Private Energy Research

Several Tasmanian companies are involved in energy research and development in the State. Projects being developed in 1985 included:

- a continuous charcoal retort by Circular Head Energy Supplies Pty Ltd at Smithton. The company has been developing the retort since 1980 and has so far spent $300 000 on the project. This includes a State Government grant of $50 000 for 1981–82 and a Commonwealth Department of Science and Technology grant of $78 000 in 1984. The company is optimistic that it can produce metallurgical grade charcoal for industry. Fines from the process would be suitable for fuel grade charcoal.

- small scale hydro-electric systems by Tamar Designs Pty Ltd at Deviot. The company began development of micro hydro-electric systems in 1975. They received a NERDCC grant of $97 000 for the period 1983–85 to develop small scale hydro-electric systems capable of operating under a wide range of water flows. Other projects undertaken by the company include automatic start-on-demand small scale hydro-electric systems, and multi-nozzle turbine systems capable of producing flat efficiency-to-power ratio curves. The small scale systems are capable of producing up to 1 MW output. The automatic start-on-demand systems are limited to 15 KW output.
- installation of a fluidised-bed wood-fired boiler system by United Milk Tasmania Pty Ltd at its Legerwood factory. The system is unique in Australia, being the only fluidised bed to use wood waste. The waste is obtained from nearby sawmills. The system was installed in order to reduce the factory's energy costs; previously it had used LPG. The boiler is connected to a thermal oil circulation system which transfers heat for two major uses, steam generation (9 tonne per hour at 1100 kPa), and heating of air for drying processes. The system became operational in November 1985.

12.7 ENERGY MANAGEMENT

12.7.1 Hydro-Electric Commission

The Commission operates an Energy Management Centre with the objective of providing advice on all energy uses to the industrial, commercial and public sectors. Advice is based entirely on the best economic interests of the client and frequently results in significant savings of electricity and other energy consumption.

In the industrial and commercial sectors individual energy assessment studies were undertaken for twelve clients ranging through food processors, timber works, oil installations, laundries and concrete works. Assessments were also undertaken in nine public facilities including libraries, schools, swimming pools and hospitals.

The Centre has planned and administers the Government's Energy Management Program which is aimed at reducing the cost of energy used in government activities. This program continues to be an outstanding success with estimates of cost savings to Government reaching $1.9 million a year.

Because of the existing type of energy use in the different sectors, savings in the Government sector have been mainly in respect of electricity while the potential for savings assessed in the commercial and industrial sector generally relates to oil fuels.

To assist in improving the general perception of the benefits available from sound energy management, the Centre has a continuing program of public seminars. Those conducted during the year included one on Maximum Demand Control and another on Wood Energy Systems.

12.7.2 Forestry Commission

Since much of the near urban forest resource is privately owned, the Commission is working closely with the Tasmanian Farmers and Graziers Association and the Commission's Private Forestry Division to identify private landowners willing to sell firewood.

To reduce the impact of winter shortfalls in firewood supply, wood merchants and home owners are being encouraged to stockpile wood in the summer by the Commission offering lower royalties in the summer months; mounting a summer education campaign through media articles encouraging summer firewood purchase; indicating the difficulty in extracting dry firewood from the forest in wet winter weather; promoting the benefits, in terms of heating efficiency, of having dry wood to burn in winter.

The Commission aims to improve firewood recovery from existing logging operations through liaison with the forest industries and encouraging existing contractors to use their equipment to recover firewood as part of normal harvesting operations.

12.8 REFERENCES

ABS Publications:

Domestic Firewood and Coal Usage, Tasmania (8204.6).

National Energy Survey: Household Appliances, Facilities and Insulation, Australia.

National Energy Survey: Household Energy Consumption.

Survey of Household Energy Sources, Tasmania, November 1975. (Uncatalogued)

Survey of Household Energy Sources and Home Insulation, Tasmania, June 1978 and November 1979. (Uncatalogued)

Other Publications:

Department of Resources and Energy, *Energy Demand and Supply*, Australian Government Publishing Services.

Forestry Commission Tasmania, *Firewood*, 1985.

The Hydro-Electric Commission, Tasmania, *Annual Report 1984–85.*

Chapter 13

WATER RESOURCES

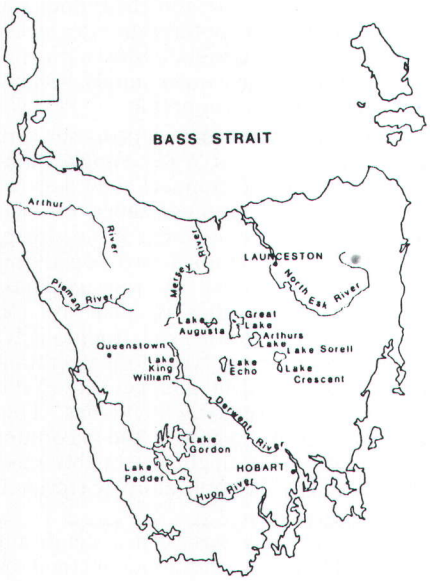
		Page No.
13.1	**Water Resources and Usage Options**	209
13.2	**Water Resources Management**	210
13.2.1	Regional Water Schemes	211
13.2.2	Irrigation Drainage and River Improvement	214
13.3	**Water Treatment**	216
13.3.1	Domestic Water Treatment; The Launceston Water Supply	217
13.3.2	Computerisation of Water Treatment	218
13.4	**References**	218

Chapter 13

WATER RESOURCES

Tasmania has been called the 'Isle of Mountains', but it would be equally appropriate to use the term 'Isle of Rivers and Lakes' given the relative purity and abundance of water supplies, compared with the more arid mainland States. Moisture-laden clouds sweep across the latitudes of the 'Roaring Forties' to deposit precipitation on Tasmania's mountainous west coast and the myriad of lakes of the Central Plateau, gradually discharging rainfall in passage towards the drier east coast. While areas such as Queenstown receive approximately 2500 mm precipitation per year, some areas of the State receive 400 mm or less. The average annual rainfall is about 620 mm per year, but considerable variation occurs, creating ocasional floods or droughts.

Tasmanian rivers often pursue a relatively steep and direct route to the sea, cascading through spectacular gorges and valleys to the coastal plains, but there are a few extensive river systems draining considerable proportions of State, the principal contributors being the Derwent, Gordon and Esk catchments. But Tasmania is equally renowned for forest fringed and tranquil river reaches, where waters stained brown by peaty soil produce reflections of earth and sky, often breathtaking in beauty.



The Central Plateau of Tasmania contains a myriad of lakes and tarns which not only provide recreational opportunity and fishing prospects, but have formed the basis of hydro-electric generating capacity. Many of the major lakes have now been regulated by dams and weirs, but in the national parks, cirque girted tarns complement jagged peaks and the sound of waterfalls drift upwards from narrow ravines.

13.1 WATER RESOURCES AND USAGE OPTIONS

Water is central to the survival and economic development of all civilisations. In Tasmania the runoff is partially conserved and distributed in a variety of ways to serve a number of competing and complementary demands of the community:

- irrigation and farm production (stock, crops and pasture),
- domestic water supply,
- fisheries production (trout and other species),
- hydro-electric energy production,
- recreational opportunity.

Most of the Australian States and Territories are now producing comprehensive water management strategies, both for forward planning purposes and water pricing, but perhaps because of the ready availability of supplies, Tasmania has been slower to initiate such reforms. Overall there is very little competition between the users of water for agriculture, industry and town

supply, since sources are tapped and treated at different locations along streams and the abundant supply does not usually necessitate any major rationing. Nonetheless there is sometimes an impression that communities are careless about water wastage, since they rarely identify the actual costs of water resource management, which are partially hidden away in expenditures, rates or taxes not obvious to the layman. Maintaining the quality and quantity of water supplies is not an insignificant problem, even in a somewhat sparsely populated region such as Tasmania and there are locations in the State where significant pollution problems have been identified, necessitating government regulation.

More serious conflict arises in respect of the competing demands of hydro-electric energy production in Tasmania and wilderness conservation. While it is true that the construction of access roads, dams and impoundments may result in the destruction of particular landscapes or habitats, or lead to the inundation of particular natural features, artificial lakes can also possess a beauty of their own and increase tourism potential. Where competing demands and perceptions exist, accommodation is never easily achieved and in recent decades Tasmania has witnessed two major conservation controversies which have taken on national as well as regional significance, namely the Lake Pedder case (1967–1974) and the Franklin–Lower Gordon Rivers debate (1978–1983). However traumatic at the time, there is now a clearer delineation of the use of water resources within Tasmania and much has been learned about the need for improved public participation in governmental decision-making.

by Dr Bruce Davis, Senior Lecturer, Department of Political Science, University of Tasmania.

13.2 WATER RESOURCES MANAGEMENT

Water supplies must be effectively assessed, protected, regulated and managed, usually by governmental initiatives, but it is no easy task to decide what organisational arrangements should apply. In some nations such activities are conducted on a regional or catchment basis, but in Tasmania the tasks are assigned to functionally specialised agencies, each with a particular jurisdiction.

The principal water management authorities are:

The Hydro-Electric Commission of Tasmania,
The Rivers and Water Supply Commission, and
The Hobart Regional Water Board.

These bodies are supplemented by a regional water system for municipalities in the West Tamar and North Esk regions, the Cressy-Longford irrigation scheme, a number of small water trusts in particular localities, various municipal water treatment systems and a number of sewerage schemes. There are historical reasons why such a complex framework has developed, but the question inevitably arises as to whether the time has come for a more integrated State-wide system to be adopted. Local autonomy would probably be strongly defended, but there are powerful economic and infrastructure developmental reasons why larger-scale units and State-wide standards should now be advocated.

The Water Act of 1957 currently governs the powers, functions and duties of public agencies responsible for water resources management in Tasmania. Apart from the Hydro-Electric Commission which has its own enabling statutes and possesses substantial powers, including the right to declare hydro-electric districts, the principal agencies are the Rivers and Water Supply Commission, the Hobart Regional Water Board, and the North-West Regional Water Authority. Each operates bulk supply schemes, piping water for distribution by the municipal authorities in the Hobart, Launceston and north-west regions and directly to certain industrial consumers.

A number of smaller population centres are served by individual water supply schemes for which the municipalities are responsible.

Because of the reliance sewerage treatment has on a reticulated water supply, the growth and development of sewerage schemes has gone hand-in-glove with the development of water schemes. It is generally true to say that municipalities with a water supply scheme have, or are currently implementing, a sewerage scheme.

Most householders pay for their domestic water supply and sewerage through rates levied by their respective municipalities. Most industrial users are charged for their water supply, according to actual metered consumption.

Water and sewerage scheme proposals are assessed by the Rivers and Water Supply Commission that they are economical as well as for their eligibility for financial assistance. Municipalities apply for subsidies and, in so doing, provide financial information as to the operation of their respective water and sewerage accounts. Determination of subsidies is made by the Minister for Water Resources and, traditionally, has been limited to 25 per cent of the operating costs of water schemes and 33.3 per cent of the operating costs of sewerage schemes. This determination also has regard to the maximum revenue a municipality might reasonably raise and is established by the application of a revenue 'standard'.

In recent years there has been a significant development from the traditional method of

calculating subsidies for sewerage schemes, and this has been by way of financing of sewerage schemes called 'Front-end Finance'. 'Front-end Finance' is a method used to finance the capital cost of a scheme over the expected construction time of the scheme and is limited to 50 per cent of the capital cost. So far, this finance has been limited to four specific rural municipalities, covering five schemes. No further subsidies are then paid on these schemes, unless major upgrading is undertaken. This method of finance is attracting increasing attention because it both assists the municipality in the construction of major works, and limits the open-endedness of subsidy payments for which the Government may be liable.

13.2.1 Regional Water Schemes

South

The Derwent Water Supply

The Derwent River at Bryn Estyn, five kilometres upstream from New Norfolk provides the source of supply for the West Derwent System and the Southern Regional System. The System consists of a Treatment Plant and Pumping Station at Bryn Estyn, supplying three, nine megalitre storage reservoirs (or head tanks) with a water level of 178 metres above sea level at Box Hill, New Norfolk.

The storage reservoirs are supplied from twin rising mains 2500 metres in length. The original rising main installed in 1962 is 900 mm diameter. The additional rising main is 1372 mm diameter and was installed as the first component of the Derwent Water Supply Augmentation Scheme. This rising main was commissioned for the summer of 1982/83.

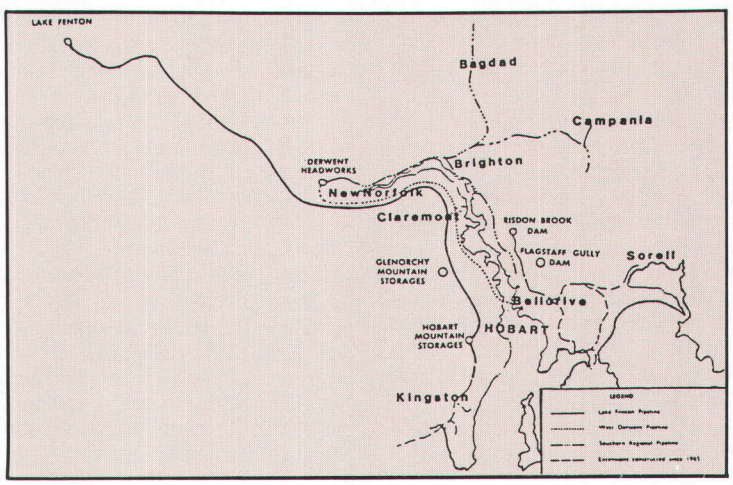
From the storage reservoirs the supply to the metropolitan area of Greater Hobart is by means of two gravity pipelines. The original pipeline installed in 1962 is 39 kilometres in length varying in size from 900 mm diameter to 450 mm diameter terminating at the Domain reservoirs in Hobart.

The second pipeline is 1372 mm diameter, the first stage of which is 27 kilometres in length and installed adjacent to the original line, was commissioned in July, 1984 and terminates at Berriedale (Glenorchy). It operates in parallel with the original pipeline, and has a design capacity of 150 megalitres per day.

The original pipeline capacity under gravity is 90 megalitres per day which, when boosted by pumping from an in-line station at Granton, could be increased to 136 megalitres per day. The combined capacity of the two pipelines will be such that the Granton pump is no longer required for that duty. There are major offtakes into the reticulation systems at New Norfolk, Granton, Glenorchy and Hobart and connecting pipelines across the Tasman and Bowen Bridges to Clarence.

The Southern Regional Water Supply

The Southern Regional Water Supply scheme provides water to the Clarence Municipality on Hobart's Eastern Shore and the Brighton, Green Ponds, Richmond and Sorell Municipalities. The source of the water for this scheme is the Bryn Estyn clear water storage reservoirs. An under river pipeline supplies treated water to a pumping station at Lawitta. Additional pumping stations at New Norfolk, Boyer and Old Beach provide a maximum capacity of 27 megalitres per day in the 525 mm diameter pipeline. The pipeline was brought into service in 1951 and the booster stations in 1975. The northern sections of the scheme are supplied from a storage reservoir at Cobbs Hill. Additional pumping is required to deliver water to rural towns of Kempton and Richmond at the extremities of the system.



THE MT WELLINGTON WATERWORKS

by Roy Davies

Reprinted from 'The Tasmanian Tramp', Journal of the Hobart Walking Club Inc., No. 25, 1984–1985, Hobart

During its first 25 years as a British colonial settlement, Hobart Town depended upon the rivulet running through its centre for most of its water supplies. By 1826 the demands made on this stream included the diversions of water to various mills, and at times reduced the water supply downstream to a trickle. Regrettably, the rivulet became a poorly flushed common sewer, and was generating outbreaks of typhus and bowel disorders. A stage was even reached when these problems were providing grounds for suggestions to transfer the capital elsewhere.

Lieut.-Governor Arthur alleviated the water shortage to some extent in 1829 by arranging diversion of another stream into the Hobart Town Rivulet. Arthur's further efforts to improve the Rivulet flow by piping water from the New Town Rivulet were frustrated by the Home Government's failure to provide the necessary pipes.

Between 1840 and 1848, the pioneer industrialist Peter Degraves, who had established sawmills, a brewery, a flour mill and bakehouses during the previous decade, was involved in a water development proposal which was accepted by the Government. Troubles arose because the Rivulet passed through Degraves's brewery. This led to allegations of tainting, and to suggestions that the diminution of flow since 1833 had been a consequence of the brewery's water concessions having been exceeded. In due course, Degraves's water supply contract was terminated.

The second half of the last century saw the systematic development of water-harvesting activities on the southern slopes of Mt Wellington, and the provision of storages for excess supplies of water. This phase of development continued until the completion of the Ridgeway Reservoir in 1919.

Perhaps of greatest interest to the wayfarer are the older parts of the Hobart water catchment systems, extending from the Plains Rivulet pipe-head (well known as St Crispins Well) to the headwaters of Browns River at Fern Tree Bower, and the associated distribution lines leading to the Hobart Waterworks Reserve. From the outskirts of Hobart, these waterways can be followed right through to a weir on the North West Bay River some 15 km from the Waterworks Reservoirs. Wellington Falls, on the same river, are not far beyond.

From St Crispins Well, with its attractive backdrop of tall ferns, the water collected is piped underground for most of the 8.5 km to the Fern Tree Bower. On the way, side tracks follow branch pipelines which augment the main supply with the aid of small dams across streams such as Plains Rivulet tributaries, Long Creek, and Fork Creek.

A monument at the Bower records the construction of the original waterworks installation there in 1861, and the damaging flood of 23 April 1960, when Silver Falls were practically buried in debris. This part of the gully (in the Browns River catchment) provides water for the final intake of the Hobart City Council's Mt Wellington water supply system.

There are several complications in the water collection arrangements. One is the open stone-lined gutter beside Milles Track, a minor high-level route between The Springs and Wellington Falls. Part of this aqueduct still carries water to an intake. Another, more recent pipe system reverses the trends of colonial days and diverts water from the Hobart Rivulet watershed into the Fern Tree systems. Also, there is the inconspicuous intake above Strickland Falls which still feeds a cascade brewery pipeline leading to the Mountain Lake area featured on 'penny red' Tasmanian postage stamps. Nowadays six large concrete tanks between Huon Highway and the Cascade Brewery replace the lake which served as a reflecting pool for Mt Wellington.

Perhaps the most interesting section of aqueduct, disused since it was replaced by a pipeline leading directly to Ridgeway Reservoir, is that extending from The Bower via the present Fern Tree village to the Hobart Waterworks Reserve. The water passed along a covered masonry aqueduct to the top of Gentle Annie Falls.

This artificial waterfall, now dry, carried water discharged from the stone aqueduct into steeply inclined troughs cut out of sandstone outcrops. The water was fed into a high level pipe-head well, and then to a receiving house for distribution to the mains or reservoirs. Within the Waterworks Reserve picnic area, there is an attractive arched masonry bridge carrying water pipes from the vicinity of the stone receiving house, which is now a picnic shelter.

Dam construction in the waterworks area employed earth embankments with clay core walls. The lower reservoir, constructed in 1861, suffered an early failure, and because of major technical problems was not permanently restored until 1895. Meanwhile the second reservoir had been completed upstream.

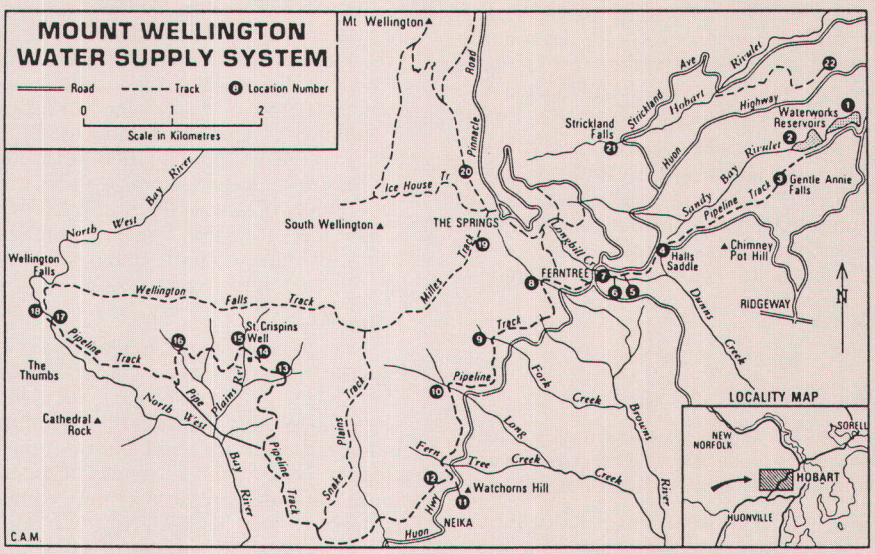
Collectors of post-cards produced early in this century may come across cards showing views overlooking the two reservoirs, and vistas of Gentle Annie Falls in full flow.

Above the Falls the path and stone troughing can be followed up an easy grade past the site of McDermott's farm to the junction between Chimney Pot Hill Road and Huon Highway. On the way to this junction is a well-preserved, all-stone valve room, originally providing for diversion of water into the gully. From the nearby picnic area, the path and underground troughing continue to Fern Tree and the Bower.

The internal dimensions of troughing on these were; height 1 ft., width 1 ft. 4½ ins.

On the way, two stone aqueduct bridges are passed. Although not improved by attachment of external water pipes and cables, these very sturdy structures are impressive in regard to design and workmanship. A plaque records that the engineer was C.W.S. James, the contractor Joseph Hawkes, and the construction date 1881. The streams bridged are headwaters of Longhill Creek.

Unexpected relics of an earlier water scheme may be found between the Pipeline Track and the section of the Huon Road just below the Pillinger Drive turnoff. On each side of the gully there are tall stone columns which supported a wooden aqueduct. The downstream part of the old aduedct route is overgrown but easily located not far below the Huon Highway.



1. Lower Waterworks Reservoir (commenced 1861; restored 1893–1895).
2. Upper Waterworks Reservoir (1887–1888).
3. Gentle Annie Falls (1881).
4. Stone Valve Room, Halls Saddle (adjoining present Ridgeway Road).
5. Overhead Aqueduct Bridge (1881).
6. Overhead Aqueduct Bridge (1881).
7. Stone Piers of former Wooden Aqueduct over Long Hill Creek (circa 1860).
8. Bower and Silver Falls Intakes, and Water Tower Plaque (1861 and 1960).
9. Fork Creek Pipe Junction ('The Wishing Well') and Intakes (3).
10. Long Creek Intakes (2).
11. 'The Old School House', Watchorns Hill, Neika.
12. Iron Shed at Tramway Terminal, *Neika.
13. Plains Rivulet Eastern Intake.
14. Plains Rivulet Intake (Close to present Hut near St Crispins Well).
15. St Crispins Well Intake (circa 1870).
16. Plains Rivulet Western Intakes (4).
17. Original Weir on N.W. Bay River (circa 1905).
18. Higher Level Weir on N.W. Bay River (circa 1916).
19. Milles Track Intakes.
20. 'The Springs' Intakes.
21. Strickland Falls Intake (Cascade Brewery Co.).
22. Mountain Lake Site (Cascade Brewery Co.)

The Mount Wellington System

Water is collected from mountain catchments by means of intakes situated on various creeks at the North West Bay River. The catchment area, which is protected from development, is approximately 1500 hectares in area and provides a total annual average yield from run-off of 6000 megalitres. This natural run-off is collected in Ridgeway Reservoir which has a capacity of 947 megalitres at full supply level, 287 metres above sea level.

Ridgeway Reservoir is the bulk supply balancing reservoir for the City of Hobart and the Kingborough Municipality, south of Hobart. It is a concrete arch dam 59 metres in height. The Upper and Lower Reservoirs at 155 metres and 137 metres above sea level, with a combined capacity of 500 megalitres, complete the system and are replenished from the Lake Fenton Supply and by pumping from the West Derwent Supply. Ridgeway Reservoir is replenished also from this source by pumping from the Lower Reservoir.

The Hobart Mountain System provides approximately 25 per cent of the present total average annual demand, however, during the summer, because of negligible natural inflow the reservoirs only act as balancing and emergency storage reservoirs and are replenished by pumping.

Glenorchy Storages

These storages comprise the Knights Creek, Lime Kiln and Tolosa Street Reservoirs, which have a combined capacity of 1550 megalitres.

The Knights Creek Reservoir is fed from the mountain catchment and the major part of the storage is retained as an emergency supply for Glenorchy in the event of a breakdown in other supply systems. About 25 per cent of storage is fed into Lime Kiln and Tolosa Street Reservoirs. It is a concrete faced rockfill dam 40 metres in height.

The Lime Kiln Reservoir receives some water from the mountain catchment and is supplemented during the summer by pumping from the Tolosa Street Reservoir. The Lime Kiln Reservoir supplies the high level areas of Glenorchy. The dam is a rockfill clay core embankment 36 metres in height.

The Tolosa Street Reservoir is mainly a balancing reservoir which can receive water from Knights Creek and Lime Kiln Reservoir, but principally receives water by pumping from the Derwent Water Supply into the Glenorchy reticulation system. The dam is a rockfill clay core embankment 20 metres in height.

Lake Fenton Supply

The Lake Fenton Reservoir is situated in the Mount Field National Park, a distance of 120 kilometres from the Hobart Metropolitan area.

The reservoir capacity is 4550 megalitres and is replenished from natural run-off from a catchment area of approximately 800 hectares. The pipeline intake level is approximately 365 metres above sea level and the 450 mm diameter pipeline supplies water to the high levels of Hobart and Glenorchy. This pipeline was first brought into service in 1940. Surplus water discharges into Hobart's Lower Reservoir. The pipeline capacity is 20 megalitres per day under gravity flow and 30 megalitres per day when boosted.

North

Bulk water is supplied to the municipalities of St Leonards, Lilydale, George Town, Evandale and Westbury from the North Esk Regional Water Supply taking water from the North Esk at Watery Plains. The City of Launceston has its own plant drawing water from St Patrick's River at Nunamara. Another scheme, the West Tamar Water Supply, supplying all developed areas in the Beaconsfield municipality, takes water from the Trevallyn Dam on the South Esk River. The North Esk Regional Scheme and the West Tamar Scheme are both managed by the Rivers and Water Supply Commission.

North-West

The municipalities of Circular Head, Wynyard, Penguin, Ulverstone, Devonport, Latrobe and Kentish in 1976 established the North-West Regional Water Authority to upgrade and manage the storage and distribution of local supplies. Since 1977 six treatment plants, seven pump stations, 17 reservoirs and 19 km of trunk mains have been installed with two reservoirs in Devonport and a treatment plant at Barrington currently under construction. Burnie manages its own scheme.

13.2.2 Irrigation, Drainage and River Improvement

With farming important for Tasmania's prosperity, the provision of a reliable source of water for irrigation and stock use has been fundamental to increased farm productivity. Over the years a number of irrigation schemes have been developed throughout the State including Cressy-Longford Scheme and Togari near Smithton (for details see 1985 and earlier editions of the Year Book). Currently under construction are the Winnaleah Irrigation Scheme in the North East of the State and the South East Districts Irrigation Scheme, the first unit of which is a new dam on the Coal River at Craigbourne. There are seven units planned for the South East Districts and the total area to be irrigated by pumping and pipeline is some 15 750 hectares.

LAUNCESTON WATER SUPPLY: A BRIEF HISTORY

The earliest method of supplying Launceston with water was very primitive indeed and consisted of carts travelling to the North Esk River near Hoblers Bridge and filling casks and barrels with buckets of water. The supply was far from ideal, being muddy and subject to tidal flow.

In 1836 the New River Scheme was commenced with the object of bringing water to Launceston from the South Esk River at Evandale by means of a cutting. The project was abandoned, mainly as a result of financial difficulties. About 1842 a scheme was designed to pump water from the First Basin by means of a large water wheel driven by water from further upstream. This project too was abandoned.

The position was relieved when a timber fluming was erected on the southern side of the Gorge to the mill at the foot of Bourke Street. A large tank was installed at the intersection of Bourke and Paterson Streets, the tank being fed from the fluming. Water carts were driven beneath the tank and the casks were filled by means of a leather hose. Small boats could also be watered by means of a longer hose.

Municipal government was established in 1852 and the first major undertaking was the preparation and execution of plans to divert water from St. Patrick's River at Nunamara to supply the city. A dam was constructed across the river about 12 miles from the city. Water was conveyed by concrete channels and a pipeline into the head of Distillery Creek and stored in a dam a few hundred yards downstream from the present Filtration Plant. Until the mid-sixties, this original storage was used to supply water to the Tasmanian Board Mills.

The scheme was completed in October 1857 and, as a mark of recognition of this important milestone in the town's progress, the ornamental fountain was erected in Prince's Square. The supply served the city, without modification for over 60 years.

After the First World War, Patons and Baldwins (now Coats Patons) agreed to set up a factory provided that they would be supplied with water suitable for the dyeing of wool. In 1925 the first stage of the present filtration plant was opened, treating water delivered to the plant by an open race. This made it possible for the water to flow through the plant by gravity, eliminating pumping costs. Today, one of the great economies of the Launceston water supply is that the majority of the city is gravity fed.

Newspaper clippings of letters published at the time show a similarity to those published 35 years later, before the advent of fluoridation. The themes were ethical ones of interfering with nature's pure water, despite the fact that 'pure', in this case, might mean the colour of tea and a gritty deposit in the bottom of the glass and, secondly, a concern that treated water would interfere with the growth of vegetables and plants.

In 1928 extensions were commissioned to double the capacity of the Plant and bring the nominal capacity up to 27 Ml/day. Over the following 25 years various improvements were incorporated to increase the efficiency of the plant and to increase the filtered water storage. Further extensions in 1954 increased the capacity to 40 Ml/day.

St. Patricks River has a catchment area of about 300 square kilometres and is estimated to have a minimum flow of 55 Ml/day. There is no reservation and both logging and farming take place within the catchment area. Since the only settlements on the river are Nunamara and Targa, sewage pollution is minimal and industrial effluents non-existent. Consequently, although the water entering the plant may be highly coloured and turbid at times, the water itself is of excellent quality.

The open race supplying the plant has been replaced by a pipeline and, more recently, improvements have been made to the headworks but, essentially, the water supply now is the same as it was 125 years ago.

Strangely enough, the water consumption has remained steady at about 9000 Ml/year for the past 25 years, but not so the number of consumers. From a maximum of 50 000 in 1955, the water population has dropped to a little over 33 000. The reduction has been partly due to the transfer of St. Leonards to the North Regional Water Supply. There has also been a continuing annual loss because business houses have been moving into the city and the population has been moving out to dormitory suburbs. The result has been that, although the base load has increased, the summer peak load has been reduced in proportion to the number of garden hoses. In recent years, the peak months of January and February have posed few problems, but to make provision for a future increase in demand, a site for a storage dam has been selected at Patersonia.

The Winnaleah Irrigation Scheme is a different concept, and is based on a disused mining dam called the Cascade Dam, constructed in 1934. In this scheme, water will be piped some 25 kilometres, to serve 1 200 hectares on 46 properties.

In 1984 the State Government established an Irrigation Office under the control of the Rivers and Water Supply Commission to promote the use by the farming community of irrigation to increase and diversify farm productivity. The RWSC for several years has been responsible for giving assistance to landowners in connection with the location, design and specifications of earth-fill dams up to a maximum of six to seven metres. In addition permits must be obtained from the RWSC for all dams or weirs on rivers, and any dam higher than 2.5 metres, or any work to hold back more than 25 000 cubic metres of water.

Monitoring water flows, the RWSC has some 200 sites around the State located in rivers, streams and creeks. These provide the statistical data from which to study the feasibility of irrigation, domestic water supply, river improvement and drainage schemes.

Drainage schemes have been established in the far north-west of the State and on Flinders Island. Works have consisted of clearing and de-snagging natural water courses and the excavation of channels, to assist with drainage and to mitigate the effects of flooding.

Landowners within the Drainage District assist with the costs of running the scheme, through the payment of rates. In return, landowners have received significant economic benefit from being participants in the schemes.

River improvement schemes also operate on specified rivers and streams. Again, by de-snagging and channel improvements, significant economic benefits flow to participant landowners. As with drainage schemes, participants are levied annual rates to assist with the running costs for the schemes. Schemes have been established on the Montagu River, Fixters Creek, Lobster Rivulet and Western Creek.

13.3 WATER TREATMENT

Since 1974 the RWSC has carried out, in conjunction with the Government Analyst, water quality analysis to test in part for abnormally high levels of pollutants. Most water in Tasmanian streams is considered to be of good quality and suitable for domestic, industrial and irrigation use.

Whilst water quality from rivers in Tasmania is generally good, treatment of bulk water occurs for most domestic use. Treatment is by the process of flocculation and the filtration of the treated water through sand filters. (See Domestic Water Treatment, Launceston Water Supply.)

One method of flocculation is the addition to the water of the chemicals aluminium sulphate and activated silica, which causes floc to form at a low concentration of alum. Floc contains most of the impurities and is drawn off to waste. After settling, the water is filtered, chlorinated and fluoridated before final delivery to consumers.

A variation on this process is that used at the Bell Bay Water Treatment Plant in the North Esk Scheme, and is called 'Sirofloc'. This process was developed by the CSIRO in the mid-1970's. In this process, magnetite and polyelectrolyte are added to the water, which has been mixed with a

Photographs showing conversion of rush infested swamps to rich arable land



small quantity of sulphuric acid. This solution is then passed over a magnet in the clarifier, where the heavy magnetite and colloidal material settles to the bottom. The clarified water is collected from the top. The magnetite slurry is collected and re-generated.

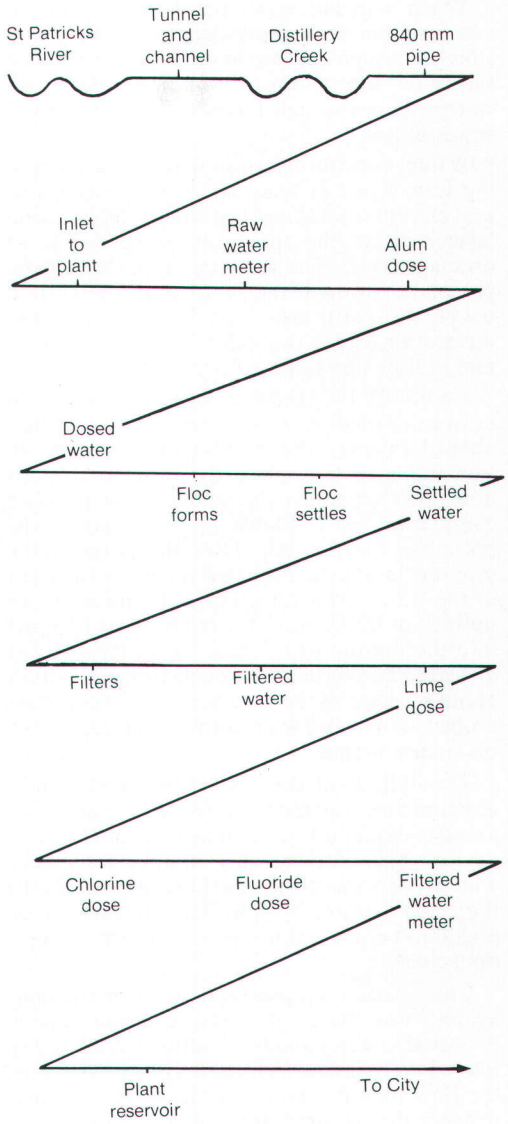
13.3.1 Domestic Water Treatment; The Launceston Water Supply

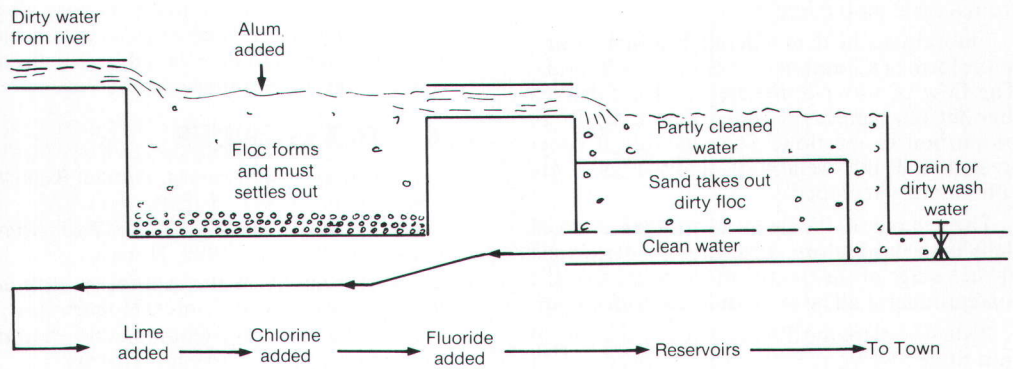
The Launceston water supply is drawn from the St Patrick's River which has a catchment area of about 300 square kilometres.

At Nunamara, about 20 kilometres from the City, a portion of the flow of the river is diverted by means of channels and a tunnel into Distillery Creek. About a mile from the Plant site, a small weir diverts the necessary flow into an 840 millimetre pipeline which delivers 'raw' water to the Plant.

The incoming water is controlled by two valves which automatically regulate the flow according to the requirement. A flow meter measures the quantity of raw water and makes a continuous record on a chart.

Treatment commences with the addition of a solution of aluminium sulphate ('alum') to the raw water. The quantity of chemical added is dependent upon the condition of the water. Dirty water requires more alum than cleaner water. The necessary amount of alum solution is fed continuously by a proportioner which automatically regulates the dose to compensate for changes of flow. The alum reacts with the natural alkali in the water to produce a floc. This consists of minute particles which coagulate to form visible particles of jelly-like material which trap solid matter and also remove colour from the water.





When coagulation is complete, dirty floc is suspended in clean water. By flowing the water slowly through settling basins most of the floc settles out and is run off to waste. The settled water is run through filters to remove the last traces of floc.

A filter consists of a rectangular tank containing four layers of material; coarse gravel, fine gravel, course sand and fine sand. The fine sand layer acts as the filter and those below as drainage layers. The water enters at the top and percolates through the sand to an underdrain below the perforated base of the filter. The underdrain leads to a module which controls the rate of flow through the filter.

Eventually the sand bed becomes clogged and must be washed. While in operation the filter has about 1.7 metres of water above the sand. When washing is to take place the water is drained down to 15cm above the sand and low pressure compressed air is blown up from jets in the bottom of the filter bed. The bubbles agitate the sand and loosen the dirt which remains suspended in the water. This air scour is followed by an upwash in which clean filtered water is pumped into the bottom of the bed. The dirty water is displaced and is run off to waste through a drain about the level of the sand bed. The filter is then refilled with settled water and is again capable of maximum output.

The addition of alum makes the water slightly acid and lime is added to correct this acidity. The amount required is determined by an electrical device which automatically controls the rate at which lime, in the form of a thin slurry is fed into the filtered water stream. The pH (acidity or alkalinity) of the water is recorded continuously on a chart.

Chlorination is practised as a precaution against waterborne diseases. Chlorine gas is dissolved in water and the solution is fed into the filtered water stream. A metering device measures the flow of water and controls a feeder which delivers the required amount of chlorine. The weight of chlorine being delivered can be read from a scale on the feeder.

Fluoride is added, as a dental health measure, in the form of a solution of sodium silicofluoride. The flow of water is metered and the desired amount of chemical is added automatically in proportion to the flow. The quantity of water treated and the weight of fluoride used are continuously recorded.

The accuracy of the chemical dosage is checked daily in the laboratory. Tests are also performed at each stage of the treatment to ensure that the final product shall be clear and free from colour.

From the plant the filtered water is discharged into three reservoirs with a total capacity of 18 megalitres and from thence into the City reticulation system.

The plant operates continuously, working three shifts per day, throughout the year.

Miscellaneous Information

Average amount of chemicals used per megalitre of water —

Alum	20	kilograms
Lime	8	kilograms
Chlorine	1	kilograms
Sodium silicofluoride	1.65	kilograms
equivalent to fluoride	1	kilogram

The plant has eleven filters with a total nominal output of 41 megalitres of filtered water per day. the annual output is approximately 9 000 megalitres, equivalent to about 250 kilolitres per head of population.

13.3.2 Computerisation of Water Treatment

A first for Tasmania, and Australia, has been the installation by the RWSC of a computerised control system for monitoring water flows in the North Esk and West Tamar Schemes. Known as the Kent 115 Telemetry Monitoring Control System, it uses a series of UHF radio links for the transmission of data between reservoirs, treatment plants and the central unit at Launceston, to monitor and control water flows. At any time, from the central unit, the status of outstations can be observed and modifications and adjustments made, as required. This has led to a dramatic increase in efficiency, and has reduced overtime payments to staff who were required to actually visit pump stations and reservoirs to control water flows.

The computer system is currently being upgraded to colour and graphics, and additional sites are being added to the monitoring process.

There is little doubt that in the years ahead other innovations in water resources management will change a field where traditional methods have sometimes been unquestioningly adopted. Often such practices were based upon sound experience, but technological and economic factors now dictate a more scientific and rational approach. Water will continue to be a valuable element of Tasmania's natural resource endowment.

13.4 REFERENCES

Hobart Regional Water Board, Annual Report, Government Printer, Hobart.

Hobart Walking Club Inc., *The Tasmanian Tramp*, No 25, 1984–1985, Hobart.

North-West Regional Water Authority, *Annual Report*, Government Printer, Hobart.

Rivers and Water Supply Commission, *Annual Report*, Government Printer, Hobart.

Chapter 14

TRANSPORT and COMMUNICATION

		Page No.
14.1	**Transport**	219
14.1.1	Motor Vehicles	219
14.1.2	Bus Services	220
14.1.3	Roads	220
14.1.4	Rail Services	223
14.1.5	Air Services	223
14.2	**Telecommunications**	224
14.2.1	Services	225
14.2.2	The Future	226
14.3	**Postal Services**	227
14.4	**Newspapers**	227
14.5	**Radio and Television Services**	228
14.6	**References**	230

Chapter 14

TRANSPORT and COMMUNICATION

14.1 TRANSPORT

Man has always sought means of transport that would save time and effort. Horses and oxen were tamed to carry heavier loads quicker and for longer distances than walking could achieve. A fallen log, then a raft and the canoe provided water transport; oars and sails soon followed.

The wheel, invented in about 2 700 BC, provided one of man's greatest discoveries. When linked with the horse it provided 4 000 years of vehicular transport before the power of the horse was replaced first by steam and then by the combustion engine. Wheeled traffic needed roads and empires needed networks of roads to control and govern large territories. The Romans built the first great system of paved roads. In 1815 macadam paving introduced the modern sealed roads.

In 1662, the omnibus, a horse-drawn wagon gave Paris the first public mass transportation system and in 1903 the Wright brothers successfully introduced airplane travel.

With settlement in 1803, Tasmania for the first time began to experience the impact of transport technology; roads and bridges, horse and oxen drawn vehicles, seaports and shipping and later the revolution of the internal combustion engine.

14.1.1 Motor Vehicles

Although Tasmania had missed 4 000 years of horse drawn transport, motor transport arrived just as quickly and with similar impact as in most other parts of the world providing cheap, fast transport and dramatically altering patterns of development and lifestyles.

In 1910 with a total of 400 motor vehicles registered including motor cycles, there were two vehicles for every 1 000 people. By June 1981 almost 85 per cent of Tasmanian households owned at least one motor vehicle. Many owned more; only 13 per cent of households did not have a car. And of those who did have a motor vehicle, most seem to have used it frequently and in preference to other forms of transport.

14.1 Households with Motor Vehicles (*a*), Tasmania, 1981 Census

Vehicles	*Households*
0	17 095
1	56 986
2	42 258
3	11 101
4 or more	4 525
Not stated	3 633
Total	135 598

(*a*) Excludes motor bikes, motor scooters and tractors.

According to the 1981 Census for example, driving the car was by far the most frequently used mode of transport for travelling to work. Indeed Tasmanians rely on the car for getting to work to a significantly greater extent than do people in other Australian States. Public transport is used much less in Tasmania than in other States, particularly New South Wales and Victoria.

14.2 Modes of Travelling to Work, Australian States, 1981 (%)

State	*Car*		*Train, bus or ferry*
	Drive	*Passenger*	
NSW	58.3	10.8	21.2
Victoria	63.2	11.5	16.1
Queensland	63.4	13.3	9.2
SA	64.5	11.4	13.0
WA	68.9	11.9	9.9
Tasmania	77.6	13.7	8.4

Tasmania had the third highest rate of car ownership in Australia, behind Queensland and Western Australia.

14.3 Motor Vehicles Registered, Australian States, 1985

State	*Number of vehicles on register*	*Vehicles per 1 000 of population*
NSW	2 984 900	55.0
Victoria	2 437 700	59.6
Queensland	1 546 100	61.4
SA	816 900	60.3
WA	866 300	62.4
Tasmania	266 500	60.8
Australia	9 118 300	58.5

14.1.2 Bus Services

Preference for the family car for such journeys as travelling to work has resulted in a relatively low patronage of public transport. Only 8.1 per cent of employed persons used a bus to travel to work in 1981.

Within the metropolitan areas of Hobart, Launceston and Burnie, the provision of public transport is the responsibility of the Metropolitan Transport Trust. Perhaps because of low and declining patronage over recent years, the MTT has attempted to attract or win back passengers with a range of fare packages and in Hobart with a new headquarters, route structure and larger buses.

14.4 MTT Passenger Journeys, Tasmania ('000)

1978–79	16 753
1980–81	16 401
1982–83	14 318
1984–85	14 535

Concessional fares are available to people on low incomes and it is estimated that 69 per cent of passenger trips are undertaken by concession travellers.

A wide range of discounted fares are available to passengers. Weekly and monthly tickets were introduced as from 30 June 1985 and provide a substantial discount to regular bus passengers.

In March 1985 the MTT received delivery of five Volvo articulated buses funded from the Australian Bicentennial Road Development Trust Fund. The 71 seat, 18 metre long buses were purchased for services from the new Springfield Bus Interchange which came into operation in mid 1985. The large capacity buses allow the MTT to operate 'link' services between Springfield and Hobart city.



1985 Volvo B10M articulated bus

Springfield Interchange

Construction of the MTT's Springfield depot and new administrative headquarters was commenced in November 1983 and finished in May 1985, estimated cost of the project is $6.3 million. The development includes modern offices, driver's amenities, bus depot and maintenance facilities as well as a passenger bus interchange to improve bus services to the northern suburbs of Hobart.

Other Works

The State Government acquired property used by the MTT to enable construction of an international hotel in Hobart. As a result the MTT's redevelopment plans include construction of a new bus body repair workshop at Mornington at an estimated cost of $1.6 million and upgrading of the City depot in Campbell Street to provide adequate facilities for bus operations at an estimated cost of $1.8 million.

14.5 MTT Operating Statistics, 1984–85

Passenger journeys —	
Hobart	10 772 000
Launceston	2 858 000
Burnie	905 000
Vehicle — kilometres	9 643 861
Revenue ($)	5 402 632
Expenditure ($)	17 573 082
Employment —	
Hobart	426
Launceston	106
Burnie	27

14.1.3 Roads

In 1807 the first road in Tasmania, a four km link between Hobart and New Town, was built. Just 11 years later, the 199 km Great North Road from Hobart to Launceston was completed. The State now has more than 22 000 kilometres of roads and highways of which some 38 per cent are sealed.

Because of the State's small size, road distances between the major centres of population, are short by comparison with the other Australian States. No major centre is more than 420 kilometres from the capital.

DISTANCES BETWEEN MAJOR TASMANIAN CENTRES

KILOMETRES

	Burnie	Campbell Town	Deloraine	Devonport	George Town	Hobart	Launceston	Port Arthur	Queenstown	St Helens	Scottsdale	Smithton	Somerset	Swansea	Ulverstone	Wynyard	Zeehan
Burnie	—	194	97	48	152	326	146	386	179	294	216	89	7	266	28	19	154
Campbell Town	194	—	96	146	118	118	67	191	243	122	137	283	201	72	165	213	280
Deloraine	97	96	—	50	89	228	48	285	202	196	118	187	105	168	69	117	239
Devonport	48	146	50	—	104	278	98	335	235	246	168	137	55	218	19	67	210
George Town	152	118	89	104	—	250	51	307	291	178	79	241	159	190	123	171	306
Hobart	326	132	228	278	250	—	199	100	250	254	269	415	333	139	297	345	287
Launceston	146	67	48	98	51	199	—	262	251	167	70	235	153	139	117	165	288
Port Arthur	386	191	285	335	307	100	262	—	343	311	326	472	390	187	354	402	380
Queenstown	179	243	202	235	291	250	251	343	—	375	321	243	172	354	207	173	37
St Helens	294	122	196	246	178	254	167	311	375	—	99	383	301	126	265	313	412
Scottsdale	216	137	118	168	79	269	70	326	321	99	—	305	223	225	187	235	358
Smithton	89	283	187	137	241	415	235	472	243	383	305	—	82	355	118	70	218
Somerset	7	201	105	55	159	333	153	390	172	301	223	82	—	273	35	12	147
Swansea	266	72	168	218	190	139	139	187	354	126	225	355	273	—	237	285	352
Ulverstone	28	165	69	19	123	297	117	354	207	265	187	118	35	237	—	47	182
Wynyard	19	213	117	67	171	345	165	402	173	313	235	70	12	285	47	—	148
Zeehan	154	280	239	210	306	287	288	380	37	412	358	218	147	352	182	148	—

Although the road network is probably as good as anywhere in relation to the volume of traffic carried, there are always improvements to be made and additional routes to be constructed.

New Road Works

The financial year 1984–85 was a year of vigorous road development with new roads being commenced throughout the State with a concentration on three outlet roads to link the north-west and west coast regions.

To overcome the problems of poor road connections to the south and west of Launceston, major outlet roads were being constructed.

The first 6 km stage of the Southern Outlet Road was opened early in 1985, extending from the southern suburb of Glen Dhu to the Midland Highway at Strathroy. Included in this section is the Mt Pleasant interchange, from which a link is being constructed to bypass south of Prospect and join the Bass Highway clear of the urban sprawl. This is due for completion in mid–1987, as are extensions to the southern outlet itself, both northwards through Glen Dhu and southwards to Breadalbane. The whole complex is being built to a dual carriageway standard.

The improvement of arterial traffic movements into and through Burnie has also been a continuing concern. The first stage, known as Burnie Expressway, Stage A, was completed almost a decade ago. Those improvements enabled a much better traffic flow into Burnie from the east, but stopped short of the central business district. The construction of the balance of the system, known as Stage B, through the business area to North Terrace was commenced in 1983 and has been handled as a series of five contracts. Traffic should be using the new facility by mid–1986, while the outlet to the west along North Terrace will ultimately be further upgraded.

The new road projects which will have the most profound long-term benefits are the three links to the West Coast region from the North-West Coast. These, together, will provide dramatically improved communications between the regions and remove the past dependence on the road through the tortuous Hellyer Gorge region. There will be, for the first time, a choice of routes which is particularly important with frequently severe weather conditions. The recent completion of the Henty Main Road from Zeehan to Strahan and the Hydro-Electric Commission roading activities associated with the Pieman Power Scheme have greatly facilitated the creation of the new links. In all, there will be a very much improved potential for all types of development on the West Coast.

Work started in November 1984 on what will be the most important of the new links, that from Guildford to Hampshire. This link will be 27.5 km in length and will require major bridges over the Hellyer and Wey Rivers. A large part of it traverses forest concession areas and hence special fire protection measures have been designed into the scheme. The route, from the Murchison Highway at Fingerpost through Hampshire and Ridgley into Burnie, is some 10.75 km shorter than the existing route via Somerset. Add to this that the existing route winds down through Hellyer Gorge and the importance of the new link can be appreciated.

As with the Guildford-Hampshire road, work started on the Que River to Cradle Mountain link in November 1984. This road will link the Murchison Highway from near the Que River to Learys Corner near Cradle Mountain. From there a number of alternative routes can be taken to Devonport, with a saving of 41 km in travelling distance from the West Coast to that city over the existing route of the Murchison and Bass Highways. Its principal role should be tourism-based, but it will also have a significant impact upon general transport when it is completed in 1987–88. The Guildford-Hampshire road should be in use the following year.

The third of the inter-regional links will be very much oriented towards tourism, where it should be of particular benefit to the Circular Head Municipality, as well as to the West Coast. It will extend from Smithton to Zeehan, involving the construction of 80 km of new roads and the upgrading of a further 40 km of existing roads and tracks. Essentially, it will go from Marrawah to the Heemskirk Road, one of the Pieman Power Development roads, which leads on to Zeehan. It will open up a very large area of considerable tourism interest and, in association with existing and planned forestry roads and local municipal roads, will provide a circular tourist route in the far north-west, the lack of which has hitherto hindered tourism in that region. A ten year construction period is envisaged, with work having started in October 1985.

South of Hobart the new link from Sandfly to Vinces Saddle on the Huon Highway was opened early in November 1985. The route provides a saving of 3 km in distance but removes the need to traverse 7.4 km of the most difficult section of that highway, a section which was also subject to severe weather conditions. The new link provides much improved road communications between the Huon region and northern areas, with a further significant improvement due when the present upgrading of the highway from Vinces Saddle to Grove is completed. That will be followed by further upgrading southwards to Huonville.

With some assistance from the Australian Bicentennial Road Development program, the State is upgrading and sealing the Coles Bay Tourist Road. After an early start some years ago at the Apsley River Bridge the emphasis has now been switched to the Coles Bay end. Substantial progress has been made with the improvements as far north as Swannick.

The Hobart Southern Outlet to Kingston is another road which has been inadequate for the demands placed upon it. Accordingly, a large scale improvement program is being undertaken, with the whole length to be brought to a dual carriageway standard. Already it has been extended from Davey Street to Macquarie Street and has been duplicated up as far as Nelson Saddle. A full grade-separated interchange at that location, is nearing completion.

Intensive studying and planning is underway for a whole series of improvements to the line of the Bass Highway from Prospect to Deloraine, while the first stage of the bypassing of Deloraine, the new bridge over the Meander River, is under construction. The upgrading of the Devonport to Ulverstone section to dual carriageway standard is also well underway, with the Lillicos Beach section in operation. A second bridge over the Forth River is complete as are other works in the Leith area, with other related projects continuing or about to commence. A major grade-separated junction at Turners Beach is to be carried out by a series of contracts.

Road Signing: During the 1984–85 financial year much of the new alphanumeric rural and arterial road signing system for the State was completed. Practically all of the rural section of the State, apart from King and Flinders Islands, as well as Greater Hobart have been completed, while the signing of the Launceston area should be finalised in 1985–86.

This signing scheme is broadly based on the British scheme. It signs to pre-selected primary and secondary focal points and to routes, rather than to each town along a road and is thus a simple, easily followed system. However, there has been some concern expressed that not enough individual town names are shown. In the modern high-speed traffic environment it is essential that the number of road signs be minimised and that they provide simple, clear information so as to reduce roadside distractions to motorists.

The body established to oversee the introduction of the system is the Road Direction Signs Advisory Council. It is comprised of representatives of the motoring public, the tourism industry and State and local governments. With all current Lands Department Tasmap, RACT and UBD road maps showing the road numbers it is now practical for a full public education scheme to be implemented. It is expected that once the public fully understands the system its simplicity and ease of use will gain it full acceptance.

As the State road authority, the Department of Main Roads which convened and provided the chairman for the Advisory Committee, has designed, manufactured and installed the signs and will ensure the future maintenance of the system. Even for such a small State it has been a particularly large project, and one which has taken five years to plan and implement but the State has been provided with a signing system that is the national leader.

14.1.4 Rail Services

On 1 July 1975 control of the State's railway system was transferred to the Commonwealth Government and in 1978 all regular passenger train services in Tasmania ceased.

For decades, Tasmania's rail system had carried relatively few passengers. As a result the service was withdrawn when budget restraints forced cutbacks in public expenditure. Today the State's rail system is used only for the transfer of goods except for an occasional tourist excursion.

In 1984–85 Tasrail moved 1 003 000 tonnes of logs and timber, 347 000 tonnes of containers, 319 000 tonnes of cement, 310 000 tonnes of coal, 106 000 tonnes of acid and 74 000 tonnes of fertiliser. Adding in lesser commodities the total moved for the year was 2.2 million tonnes.

Since the transfer of Tasrail from the State Government to the Australian National Railways Commission in 1978 freight hauled has grown by 58 per cent. Freight hauled per employee has grown to 2.5 times the 1978 level. The deficit has been reduced by 31 per cent ($9 million in current 1985 money values). Derailments have been reduced to the lowest level in 13 years. The track system has been upgraded to a good standard, by spending over $20 million since 1978. 92 per cent of track is now operating safely without speed restrictions. 340 wagons and 18 locomotives with a total replacement value of $40 million have been added to the Tasrail fleet.

The Future

The Commonwealth Government has committed $52.4 million to support Tasrail operations for the next three years. Track rehabilitation will continue with Commonwealth support, $7 million in 1985–86 to 1987–88 and upgrading of locomotive and wagon fleet to a modern cost-efficient standard is planned. Tasrail is committed to keeping bulk freight on rail and intends to remain competitive with other forms of transport.

14.1.5 Air Services

Comparatively, Tasmania is well served by air transport. Australia's domestic airlines, Trans Australia Airlines, Ansett Airlines of Australia and East-West Airlines provide regular direct flights between the mainland capitals, Melbourne and Sydney, and Tasmanian airports at Hobart, Launceston, Wynyard and Devonport. Few Tasmanians would live more than 150 kilometres from a major airport; few are more than a two hour's drive from Australia's domestic air network.

Air New Zealand and Trans Australia Airlines continued to operate between Hobart and Christchurch, New Zealand while Qantas operates between Hobart and Auckland.

Internally, Tasair and Par Avion provide charter and tourist flights and operate flights to King and Flinders Islands, and Queenstown from Hobart and Launceston.

Aerodromes

Hobart Airport: Ranks eighth in the volume of passengers handled at Australian terminals. Strengthening of the taxiway and aprons to take Boeing 747 aircraft in full weight was completed in 1985. International operations to New Zealand, commenced during November 1980, with Ansett Airlines (ceased operations on 3 March 1982) and Trans Australia Airlines operating on behalf of Qantas. The airport is equipped with complex aviation aids. A new enlarged terminal and communication buildings were completed in 1976. A new international terminal was opened in 1985.

With a 2 251 metre runway, the airport, 18 kilometres from the city, has the capacity to handle international operations, not only to New Zealand, but as far away as Singapore as well.

Launceston Airport: 16 kilometres south-east of Launceston, it ranks after Hobart in passenger volume but handles considerably more freight; it is the main terminal for the Ipec DC9 freighter. The area control centre provides air traffic control for Tasmania via repeater stations, south on Mount Wellington and north on Mount Barrow. The airport is also used for commuter operations, flying training, light aircraft charter and aerial work operations.

Wynyard Airport: This has one sealed runway of 1 513 metres and one 1 189 metres long for regular public transport operations, charter, aerial work and private operations. It currently handles F27 aircraft and is currently being upgraded for F28 aircraft. It also caters for a commuter service from Phillip Island (Vic.) operated by Phillip Island Air Charter.

King Island Airport: Located six kilometres north-east of Currie. It has three gravel runways, night lighting and radio navigational equipment. It caters for commuter services operated by Airlines of Tasmania Pty Ltd and Kendell Airlines, as well as charter and private aircraft operations.

Flinders Island Airport: Located five kilometres north of Whitemark. There are two gravel and one grass landing strips plus an apron, taxiway, terminal and navigation aid facilities. Main services being commuter provided by Airlines of Tasmania Pty Ltd and charter operations.

Cambridge Airport: This was constructed during the early period of aviation and has four runways. The proximity of hills prevent further development and after completion of the Hobart

Airport, Cambridge became a centre for light aircraft and helicopter activities.

Devonport Airport: Located 6 kilometres east of Devonport, it is owned by the Port of Devonport Authority under the Commonwealth Airport Local Ownership Plan. Originally constructed in the early 1930's it was developed to handle DC3, DC4 and Viscount aircraft in 1950. 1982 saw the commencement of work to bring the airport up to DC9–F28 jet standard which was completed in October 1983 at a cost of $6.5 million. Regular F27 passenger services of Ansett and F27 and F28 passenger services of East-West, commuter services of Airlines of Tasmania Pty Ltd together with aerial work, flying training, charter and private aircraft operations are carried on from this location.

Smithton Airport: Located three kilometres west of Smithton, it is owned by Transport Tasmania. It has a sealed main runway plus lesser gravel strips and is used for regular commuter services as well as itinerant charter and private operations.

St Helens Airport: The aerodrome is owned and operated by the Municipality of Portland. A grassed strip 1 189 metres long and 91 metres wide is of sufficient dimensions to permit operations by DC3 and F27 type aircraft. The aerodrome currently services the charter, aerial work and private operation requirements for the area and has a non-directional beacon for instrument navigation.

Queenstown Airport: The Municipality of Queenstown under the local ownership plan provided an authorised landing area for light aircraft in 1937. In 1963 work commenced on the construction of a runway suitable for the operation of DC3-type aircraft, which was opened on 17 April 1966. It is served by regular commuters of Airlines of Tasmania Pty Ltd.

Strahan Airport: This airport, together with Queenstown Airport, services the West Coast of Tasmania. Opened for regular public transport operations in 1964, Strahan aerodrome was constructed under the aerodrome local ownership plan and is owned by the Municipality of Strahan.

14.6 Aircraft Movements, Passengers and Freight, 1985

Airports	*Aircraft movements*	*Passengers ('000)*	*Freight (tonnes)*
Hobart	*p* 9 228	571	5 114
Launceston	7 038	387	*p* 37 500
Devonport	11 166	143	n.a.
Wynyard	5 331	69	*p* 100

14.2 TELECOMMUNICATIONS

Hailed as a complete success, Mr Alfred Biggs' experimental telephone call between Launceston and Campbell Town in 1877, has been claimed to be the first occasion on which a telephone was used in Australia. And just 100 years later Tasmania scored another telecommunications first. When the manual telephone exchange at Swansea was replaced with an automatic service in June 1977, Tasmania became the first State to have a fully automatic telephone network.

Tasmania's first telephone, constructed by Mr Biggs, was of Huon Pine turned on his workshop lathe to plans published by Alexander Bell in *The British Mechanic*. Mr Biggs was a self educated head teacher at Campbell Town who had become a keen astronomer and amateur scientist. He made three telephone sets, positioned them at the Launceston and Campbell Town railway stations, and transmitted the 80 kilometre distance along the telegraph line which ran beside the railway.

In 1854 Australia's first telegraph line was opened between Melbourne and Williamstown. Three years later the first telegram was sent between George Town, 64 kilometres north of Launceston, and Mount Lewis, 32 kilometres south of Hobart. It was natural that a link with Melbourne should soon follow. In 1859 a cable was laid from Cape Otway in Victoria to King Island, to Stanley and then to Low Head. After only a few weeks in operation the cable failed, to be finally abandoned in 1861. Ten years elapsed before another cable was laid.

The telegraph remained Tasmania's only link with the outside world until 1936 when a special co-axial cable was designed and laid between Apollo Bay in Victoria and Stanley, again via King Island. It carried five telephone circuits, seven telegraph and one broadcasting circuit and gave Tasmania a direct telephone link with the rest of the world.

The first telephone line in the State linked Hobart and the Mt Nelson signal station in 1880 and by 1883 both Launceston and Hobart had exchanges, only three years after Australia's first exchange opened in Melbourne with 44 subscribers. The Hobart exchange opened with 10 subscribers, and 35 with the Launceston exchange.

Before Federation each State was responsible for its own telephone services. With Federation in 1901 Australia's postal, telegraph and telephone services came under the control of the Commonwealth Postmaster-General's Department and remained that department's responsibility until mid 1975.

Since 1 July 1975 postal and telecommunications functions have been vested in two statutory authorities, the Australian Postal Commission

(Australia Post) and the Australian Telecommunications Commission (Telecom Australia). Australia Post assumed responsibility for mail services; Telecom Australia was given responsibility for internal telecommuncations such as telephones, telex, telegrams and similar services.

14.2.1 Services

During the 12 months to June 1985, 15 843 new telephone services and 171 new telex services were installed in Tasmania. This brought the total connections to 162 072 telephones and 1 152 telex services.

14.7 Telecommunications Services, Tasmania, June 1985

Services	*Number*
Private telephones	160 960
Public telephones	1 112
Total telephones	162 072
Instruments in operation	240 512
Telex services	1 152
Datel services	2 643

During the year, the value of local and STD calls was almost $59 million; a further $2.3 million worth of calls was registered at public telephones and 62 000 telegrams were lodged.

Apart from Subscriber Truck Dialling (STD) being available to all Tasmanian customers, International Subscriber Dialling (ISD) to more than 165 countries is now available upon request to 139 143 telephone subscribers throughout the State. At 30 October 1985, 85 207 subscribers had availed themselves of this facility.

The Datel Service

Today a growing part of our everyday telecommunciations traffic is not between people, but between a person and a computer, or even between two computers alone. Computers need to communicate for many reasons; for example people using remote computer terminals may need to call up information from a centralised data base, or to advise a central computer of some change needed in its records. A familiar example of this is booking a ticket with an airline at an outlying agency. Space on a particular flight can be checked, the booking made and confirmed, and the central computer informed that the seat is now filled, all in a matter of seconds by means of data communication along the telecommunications network.

The Datel service has been available for some years, and allows computers to communicate at various speeds using what are basically ordinary telephone lines. To do this, digital signals from the computer are converted by means of a data modem into a form which can be transmitted along the line in a similar manner to the voice. At the other end, a modem converts the analogue signals back into a digital form.

At 27 November 1985, 2 753 modems were in service in Tasmania.

Telefinder

The 'Telefinder Radio Paging Service', which commenced in Hobart on 14 November 1977, in Launceston on 19 February 1979 and in Burnie on 13 April 1984 provides a point to point contact facility whereby a Telefinder subscriber carries a lighweight pocket receiver which emits an audible 'Beep' when it receives a signal broadcast from a paging radio transmitter. The alerted customer then takes some pre-arranged course of action such as contacting his office to receive information. At 12 June 1985, 1 321 paging units were in operation in the State.

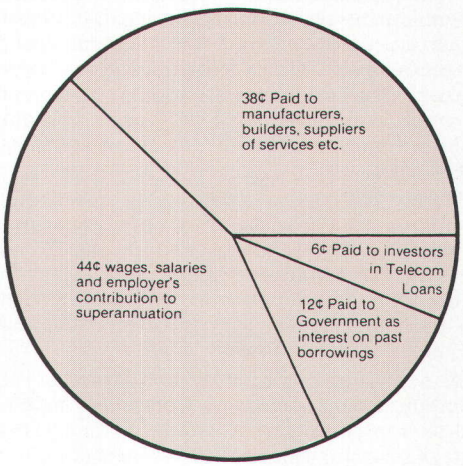
Other Services

Other services provided by Telecom include the mobile telephone for busy executives who need to keep in touch at all times. INWATS, a service which provides a customer with a special 008 prefix telephone number which can be called from anywhere in Australia for the cost of a local call. The holder of the INWATS number pays a special charge for each call received.

Statewide and nationwide radio and television broadcasts are carried on Telecom's broadband network out to transmitting stations across the country; the same network also distributes the satellite programs from overseas, once they have been received in Australia.

Facsimile machines are used to send copies of drawings, graphs, handwriting or even photographs over the telecommunications network by connecting machines to ordinary telephone lines.

The Telecom Dollar



14.2.2 The Future in Telecommunications

Telecom in Tasmania, along with the rest of Australia and other nations, is rapidly developing the communications network for the future.

The network of the future will be digital — all of the information, whether it be voice, data, video or facsimile, is conveyed as a stream of bits, or on/off signals. This is the language of computers. The various services of the future will be integrated, that is, rather than having separate networks for telephones, telex, data, television etc. as at present, most of these services will be carried by the same electronic channels and switched by the same exchanges. Hence the term, Integrated Services Digital Network, or ISDN.

Work is already progressing in Tasmania with the basic network to support this service of the future. The AXE exchanges to provide this service are being installed in the major population centres throughout the State, initially at Hobart, Launceston, Devonport and Burnie. These computer controlled switches will make possible a range of new facilities for telephone customers, services such as three-way conference calls, follow-on calls, do not disturb, and call diversion, as well as the ability to provide a more detailed record of STD calls.

To connect these new exchanges digital 'highways' are being built. In 1986, radio links capable of carrying 140 million bits of information each second will link Hobart, Launceston, Devonport, Burnie and Melbourne.

1986 will also see the introduction to Tasmania of another important new technology — optical fibre transmission. These are essentially very small diameter flexible rods of high purity glass which can carry information — the on/off bits again — which has been impressed on laser light beams. These systems can carry enormous amounts of information, typically, at present, 560 million bits per second for each pair of fibres, which is equivalent to 8 400 telephone calls simultaneously. Other advantages are their relatively low cost, a much reduced requirement for amplification compared with current systems and freedom from electrical power and lightning interference.

During 1986 optical fibres will be installed in Tasmania to connect radiocommunications terminals to city exchanges, and in some urban areas to interconnect telephone exchanges. In future years these fibre cables will be extended out into country areas and eventually interconnect the major cities and towns.

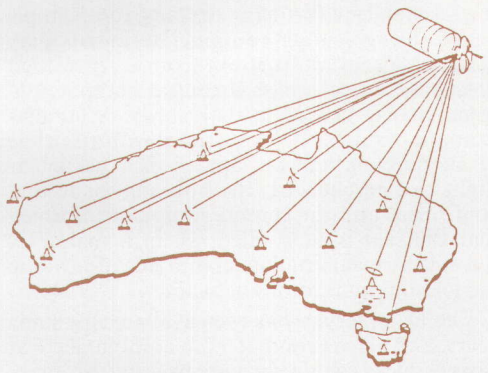
A new innovation now available is the ComputerPhone. Telecom's ComputerPhone is a desk top computer providing an integrated suite of software which covers the most common business applications of word processing, data base, spread sheet and graphics. It is based on the Motorola 68008 microprocessor and consists of two units — a 23cm monochrome or a 35cm colour monitor and a control unit.

The ComputerPhone connects directly into a standard telephone socket. Its features include:

- telephone directory of 500+ entries;
- one or two telephone lines for alternate or simultaneous data calls;
- manual dialling via keyboard or separate keypad plus various keys dedicated to telephony;
- quick dial features, including redial last number, redial of last six numbers;
- abbreviated dialling using short codes or alphabetical abbreviations;
- loudspeaker for hands free call connection;
- voice synthesiser for automatic answering;
- optional monitoring of call duration and cost.

Australia's $73 million domestic communications satellite, Aussat 2, was launched by the space shuttle Atlantis in November 1985. Australia paid $14.5 million to the National Aeronautics and Space Administration for the launch service. The major use of the satellite is to enable all rural areas to receive radio and television broadcasts.

Telecom also plans to make extensive use of Aussat 2 by providing telecommunications services via the satellite. These services are being given the overall name of the ITERRA Satellite Service. It will be a premium service, of necessity costing more than an ordinary telephone service as befits its much greater cost to provide. The service will provide high-quality telephone, fascimile, telex and data communication. It is expected to be very attractive to large organisations working in remote areas, such as mining companies, off-shore oil explorers, large pastoral stations and remotely-located tourist developments.



ITERRA Network













Bottom left : Bryn Estyn
Remainder : The Mt.Wellington Water System

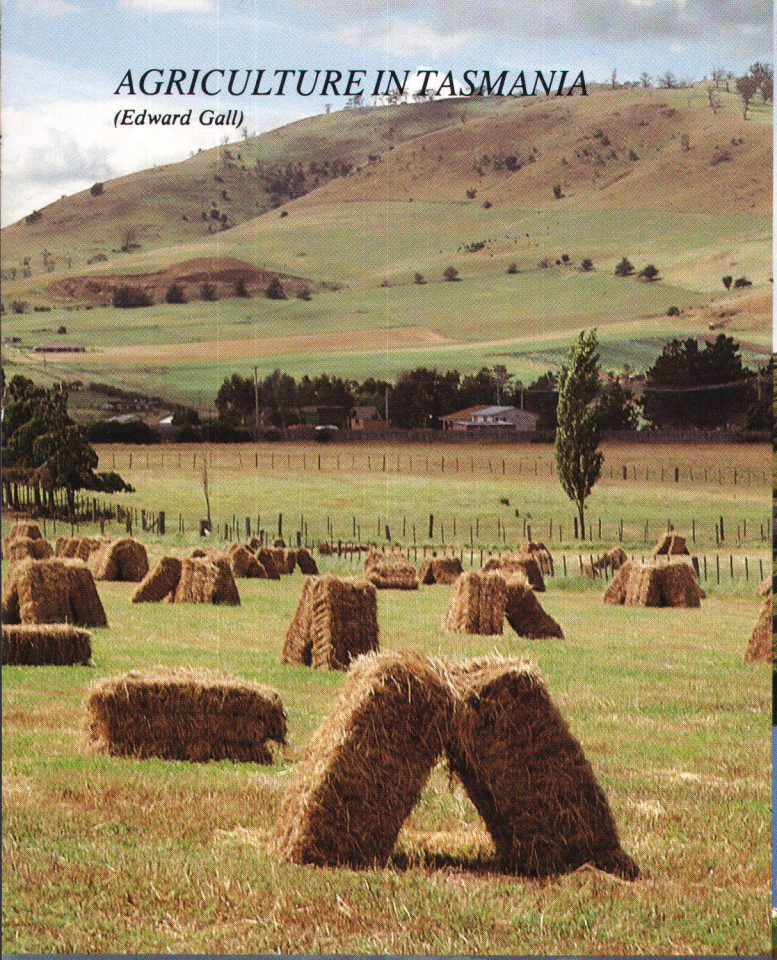
(Government Stills Photographic Section)
(Edward Gall)

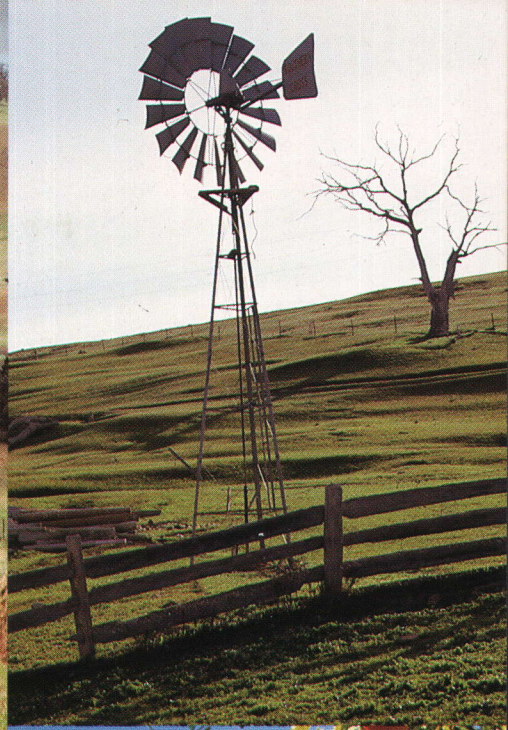


Cape Wickham microwave repeater on King Island, Tasmania showing the wind generators which provide power for the telecommunications equipment. *(Telecom Australia)*

AGRICULTURE IN TASMANIA

(Edward Gall)













Train load of ore from Cape Horn ore body, Mt. Lyell. *(Michael Dix)*



Diamond drilling at Colebrook Hill, near Rosebery. *(Peter Collins)*



Savage River Mines open-cut mine.
(Savage River Mines)



Mining limestone at Railton. *(Goliath Cement)*



Hydraulic development jumbo drill, Mt. Lyell.
(Government Stills Photographic Section)

14.3 POSTAL SERVICES

Australia Post provides surface and airmail services, both within Australia and to and from other countries for the carriage of letters, cards, aerogrammes, newspapers, packets and parcels.

Special services provided include priority paid, cash on delivery, registered post, response services, private boxes and locked bags and several reduced rate services. It also operates an express courier service and electronic postal services.

Australia Post operates a money transfer service (money order), sells a range of packaging products (postpak), postal stationery and philatelic items and acts as an agent for many services of Commonwealth, State and Local Government departments and authorities. It also acts as an agent for private-sector principals.

On behalf of private enterprise, post offices now issue insurance policies and accept premiums, display investment prospectus booklets, display and accept orders for flags and other promotional material and sell a philatelic magazine.

Services currently being considered or trialled include the sale of interstate coach tickets, key rings designed to be returned through the mail if lost and travellers' cheques.

Australia Post employs approximately 739 staff in Tasmania. Gross postal receipts for 1984–85 in the State were $20.5 million; $10.7 million was from the sale of postage stamps including philatelic sales. At Sorell, a new post office was opened.

14.8 Postal Services, Tasmania, 1985

Post Offices —	
Official	41
Non-official	190
Postal traffic —	
Standard letters	53 684 000
Non-standard articles	6 736 000
Parcels	629 000

Mail was distributed to 163 598 different delivery points throughout the State during 1984–85, 150 189 households and 13 409 businesses.

Postal vehicles operating within the State included: 77 mail vans, 6 trucks, 130 motor cycles, 15 sedan cars and wagons and 65 bicycles. This was 10 vehicles more than in 1984.

Philatelic Service: A total of 14 stamp issues were released during 1984–85 in Australia.

One series titled 'Navigators and Shipwrecks 1788–1988' featured two prominent early explorers, Tasman and Dampier. The stamps were issued to commemorate 200 years of Australian settlement and are part of the bicentennial collection.

The Future: Changes are on the way, involving a major expansion of electronic postal services and the introduction of new technologies to improve customer service and productivity. Australia Post plans to improve productivity and performance by applying new technology to letter sorting and by introducing containerisation in order to remain competitive in the challenging and changing market place.

14.4 NEWSPAPERS

by David Waters, Senior Lecturer, School of Librarianship, University of Tasmania.

Tasmanians have enjoyed a tradition of a vigorous and competitive press since early colonial days. The colony's first newspaper, the *Hobart Town Gazette*, was produced by Andrew Bent in 1816. Publication continued until 1825, when Governor Arthur, who had been consistently criticised and attacked by Bent, gained control of the *Gazette* through the intriguing tactic of engaging alternative printers to publish an issue on 24 June with the same name and numbering as Bent's publication! The two publications continued in competition until 19 August, when Bent changed his paper's name to *Colonial Times and Tasmanian Advertiser*. Arthur brought successful libel actions against Bent in 1826 and 1827, and denied him a licence to publish. Several new publications appeared in the following decade, and by mid-century the two major present-day city newspapers were established: *The Examiner* (Launceston) in 1842, and *The Mercury* (Hobart) in 1854.

Although Tasmania's population is relatively small, it is rather decentralized, and for this reason *The Mercury* (average daily circulation about 55 000) and *The Examiner* (45 000) continue to flourish, along with a third regional newspaper, *The Advocate* (26 000), which serves the north-western part of the State. Each paper serves as the major printed source of news — local, national, and overseas — for the majority of people in its region. Each newspaper also produces a weekend edition: *The Sunday Tasmanian* (*The Mercury*) average circulation about 38 500; *The Sunday Examiner* (*The Examiner*), 37 000; and *The Weekender* (*The Advocate*), 14 600. These papers contain a

miscellany of overseas and Australian items from the news agencies, some local reporting, and substantial magazine sections.

The Mercury is published by Davies Bros. Ltd., which is 49.98 per cent owned by Herald and Weekly Times Ltd., a large Australian media conglomerate. *The Examiner* is published by ENT Ltd., a Tasmanian company with interests in publishing, television (including ownership of both of Tasmania's commercial channels), advertising, cinemas, accommodation and tourism. *The Advocate* is published by Harris and Co., a local Burnie company with interests in stationery, office machines and property development, as well as publishing.

A recent phenomenon has been the emergence of weekly advertising newspapers, delivered free of charge to letter-boxes. *The Tasmanian Mail* circulates 130 000 copies throughout the State, and *The Southern Star* circulates 60 000 copies in Southern Tasmania. In each case, the emphasis is on local interest and magazine-type articles, as well as advertising promotions. Davies Bros. circulate *The Tasmanian Country*, reporting items of agricultural interest, free of charge to bona fide farmers throughout the State. *The Treasure Islander*, an independent monthly, is aimed at the tourist market, and the *Tasmanian Business Reporter* is published by the Chamber of Commerce for the business community.

Over 20 small local and regional newspapers exist throughout Tasmania. They range from the duplicated publications of local community and school groups, consisting mainly of announcements of local clubs and organizations (for example *Bruny News*; *Kentish Times*; *Waratah Whisper*) to more substantial weekly printed broadsheets with circulations up to 3 000, and reporting local news stories as well as community announcements. These include: *Central Coast Courier* (Orford); *Circular Head Chronicle* (Smithton); *Derwent Valley Gazette* (New Norfolk); *Huon News* (Franklin); *King Island Chronicle* (Currie); *King Island News* (Currie); *North Eastern Advertiser* (Scottsdale).

14.5 RADIO AND TELEVISION SERVICES

Radio and television broadcasting fall within the jurisdiction of the Commonwealth Government and is one of the responsibilities of the Minister for Communications. Federal bodies which are directly involved include the Department of Communications, Australian Broadcasting Tribunal, Australian Broadcasting Corporation, Special Broadcasting Service and the Australian Telecommunications Commission.

The Australian broadcasting system consists of three types of services:

- national radio and television services provided by the ABC and SBS;
- commercial radio and television services provided by commercial companies under licence;
- public radio services provided by non-profit making corporations under licence.

The Broadcasting Act 1942 governs the establishment and operation of commercial and public services. It also contains provisions relating to the SBS and the ABT. The *Australian Broadcasting Corporation Act* 1983 provides for the ABC. The Minister for Communications is responsible for developing policy, legislation and for planning of the overall system. The Minister is also responsible for approving the technical operation of services and for investigating interference to the transmission or reception of programs. The Department of Communications provides advice on all matters the Minister is responsible for and in many instances undertakes functions on behalf of the Minister. An important function of the Minister is the consideration of all planning proposals for the establishment of radio and television services. For commercial and public services, once the Minister has approved proposals and invited applications for a licence, such applications are considered by the ABT.

The ABT is responsible for the licensing and supervision of commercial and public licensees and their services (other than technical equipment). It is empowered to grant, renew, suspend or revoke a licence and to determine standards and conditions for the broadcasting of programs and advertisements. The licensing process is conducted through the holding of public inquiries which may include conferences and hearings. A licence may be granted for a period of up to five years and renewed for a period no longer than three years. Standards and conditions are determined after a lengthy process of consultation with industry bodies and the public. The Tribunal investigates alleged breaches of the standards and licence conditions. It is also charged with inquiring into matters determined by the Minister.

National Broadcasting Services

The ABC currently provides one television service nationally, three radio services (two AM and one FM) in the capital cities (except Sydney which has 2 AM and 2 FM) and two radio services (one AM and one FM) in regional areas (although not all areas are yet receiving ABC FM). However, in November 1985, the Minister

announced that draft plans had been issued to establish an extra ABC radio service, the Second Regional Radio Network, in regional areas.

The ABC is a major user of the new Australian satellite system, Aussat, and this enables people living in remote areas or areas in which it is extremely difficult to receive broadcasting signals by terrestrial means to receive ABC television and three ABC radio services. However, reception via satellite will only be possible with the necessary equipment.

The SBS is currently in the process of becoming a national service. At this stage, only the capital cities are being provided with the television service; the introduction of the service in Hobart in early 1986 completed this phase of its development. In Sydney and Melbourne, the SBS also operates a radio station broadcasting multilingual programs. The television service is multicultural in theme and its programs reflect the many cultures of the world which exist in Australia.

14.9 Radio Stations in Operation at 30 June 1985

Call sign	*Classification*	*Location*
7ZL	National	Hobart
7ZR	National	Hobart
7NT	National	Launceston
7QN (*a*)	National	Queenstown
7FG (*a*)	National	Fingal Valley
7SH (*a*)	National	St Helens
7HO	Commercial	Hobart
7HT	Commercial	Hobart
7AD	Commercial	Devonport
7BU	Commercial	Burnie
7EX	Commercial	Launceston
7LA	Commercial	Launceston
7QT	Commercial	Queenstown
7SD	Commercial	Scottsdale
7THE-FM	Public	Hobart
7HFC-FM (*b*)	Public	Hobart
ABC-FM	National	Hobart Launceston

(*a*) Transmits, in the main, programs originating from 7NT.
(*b*) Commenced operation in 1980.

Commercial Broadcasting Services

A commercial radio or television licensee is required under the *Broadcasting Act* to undertake to provide an adequate and comprehensive service to people within the service area of the licensee and to use and encourage the use of Australian resources. Whether a licensee has met the undertaking is a matter of judgement for the Tribunal after considering all relevant information, including views and comment from interested members of the public through the licensing process. Commercial broadcasters receive most of their income from the broadcasting of advertisements. Commercial broadcasting licensees are required to pay licence fees annually.

A commercial television service is also to be provided to people living in remote or underserved areas. Called the Remote Commercial Television Service (RCTS), it may be received in the same way as the ABC satellite service. The parent company of the licensee companies of television stations TVT Hobart and TNT Tasmania, ENT Limited, is a member of the company which will be granted the licence to provide such a service to the south east of Australia — NSW, Vic and Tas. The service is expected to commence in 1987.

Public Broadcasting Services

Public radio services have expanded rapidly throughout Australia since 1978 when the then Minister announced policy guidelines for its development. From 12 stations in 1978, the sector now comprises over 70 services in 1986. In Tasmania, two new services were licensed in 1985 to serve Launceston, a community station to serve a broad range of community groups and interests, and a christian service. There are now five public radio stations in Tasmania. Funds may come from a variety of sources including government and non-government grants, subscriptions and sponsorship announcements. Public radio services are essentially local in focus and may program material which reflect the wide range of interests, informational, cultural and educational, in each service area.

14.10 Television Stations in Operation, 30 June 1985

Call sign and channel	*Area*	*Transmitter location*
National —		
ABT 2	Hobart	Mt Wellington
ABNT 3 (*a*)	NE Tasmania	Mt Barrow
ABKT 11 (*a*)	King Island	Gentle Annie Hill
Commercial —		
TVT 6	Hobart	Mt Wellington
TNT 9	NE Tasmania	Mt Barrow

(*a*) Transmits programs originating from ABT 2.

Program and Advertising Standards

Commercial and public licensees are required to meet the Tribunal's standards. The ABC is required to have regard to the standards but are not obliged to meet them. The standards include requirements relating to Australian content, the acceptability of program material, duration and suitability of advertisements and, in the case of television, special provisions

relating to children's programs. In 1986 the Tribunal will continue its review of the standards.

In 1985 the Tribunal conducted public inquiries for the renewal of licences for commercial television stations, TVT Hobart and TNT NE Tasmania and in December the licences were renewed for three years.

Microwave Links, Intrastate Relays and Translator Stations

The prime sources of programs in Hobart are the commercial and national studios which are linked to their Mt Wellington transmitters (TVT 6 and ABT 2) by microwave links; the comemrcial studio in Launceston feeds programs to its Mt Barrow transmitter (TNT 9) by the same method. As there is no national studio at Launceston, the transmitter on Mt Barrow (ABNT 3) relays the Hobart national programs through the broadband radio link. A similar service is also available to commercial stations.

14.11 Television Translator Stations in Operation at 30 June 1985

Area served	*Local channel*	
	National	*Commercial*
Burnie	4	10
Derby	..	11
East Devonport	45 (approx.)	48 (approx.)
Lileah	8	6
Maydena	..	8
Queenstown-Zeehan	4	8
Rosebery-Renison Bell	1	10
Savage River-Luina	4	7
Smithton	4	11
South Launceston	1	11
St Helens	0	7
St Marys-Fingal Valley	1	11
Strahan	10	..
Strathgordon	5	8
Swansea-Bicheno	4	8
Taroona	..	8
Waratah	2	11
Wynyard	1	5A

Tasmania, due to its terrain, has areas where television reception direct from the Mt Wellington or Mt Barrow transmitters is either difficult or impossible. To provide good reception in such areas, translator stations, which are low-powered stations receiving signals from a parent station and re-transmitting on a different frequency to areas with poor reception, have been installed. Translator stations cannot broadcast directly.

14.6 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Motor Vehicle Census, Tasmania, (9302.6), irregular.

Motor Vehicle Registrations, Tasmania, (9303.6), monthly.

ABS Publications Produced by the Canberra Office:

Summary of Characteristics of Persons and Dwellings, Tasmania, (2440.0), 30 June 1981.

Other Publications:

Australian Postal Commission, Annual Report 1984–85.

Australian Postal Commission, *A History of the Post Office in Tasmania*, Mercury-Walch, Hobart.

Australian Telecommunications Commission, *Annual Report 1984–85.*

Telecom Australia, *All About Telecom, An Introduction to Telecom Australia.*

Telecom Australia, 'The Palace of Winged Words', *The Development of Telephone Exchanges in Australia.*

Telecom Australia, *The Code which spelled Communication, A History of Telegraphy.*

Metropolitan Transport Trust, *Annual Report*, 1984–85, Tasmanian Government Printer, Hobart.

Australian National Railways Commission, *Annual Report.*

Chapter 15

AGRICULTURE

		Page No.
15.1	**Land Use**	233
15.1.1	Sown Pasture and Principal Crops	234
15.2	**Livestock**	234
15.2.1	Sheep	235
15.2.2	Cattle	235
15.2.3	Pigs, Goats and Deer	236
15.3	**Livestock Products**	236
15.3.1	Meat	236
15.3.2	Wool	237
15.3.3	Dairy Products	237
15.3.4	Honey	237
15.4	**Principal Crops**	238
15.4.1	Vegetables and Hops	238
15.4.2	Fruit	239
15.4.3	Oil Poppies	240
15.4.4	Essential Oil Crops	240
15.5	**Services to Agriculture**	240
15.5.1	Agricultural Quarantine	240
15.5.2	Research and Development, Department of Agriculture	241
15.5.3	Veterinary Services, Department of Agriculture	241
15.5.4	Soil Erosion	242
15.5.5	Tasmanian Rural Youth	242
15.6	**References**	243

Chapter 15

AGRICULTURE

'After taking measures to secure yourself and people you will proceed to clear ground on the public account for the cultivation of wheat and other plants. You are to inform yourself of the nature of the soil what proportions of land you find proper for the cultivation of wheat, barley and flax ... what quantity of cattle can be taken care of.'

(*Part of the the order given to Lieutenant Bowen to establish a Tasmanian settlement, 29 March 1803* —)

Agriculture in Tasmania got underway immediately upon the establishment of a settlement at Risdon Cove; the cultivation and maintenance of food reserves was essential to the survival of the fledgling colony given its extreme isolation. A return, dated 27 September 1803, shows that Tasmania's total livestock amounted initially to one bull, ten cows, two rams, thirty sheep, thirty-eight pigs, eight goats and a horse.

The importance that agriculture was to assume for the State is reflected in the early history of the settlement; its history is virtually recorded in terms of the success and failure of its crops. The earliest settlers were constantly dogged by shortage, and on more than one occasion, they were to find themselves on the verge of starvation.

Once the colony had moved across the Derwent to Sullivan's Cove, a government farm was quickly established at what is now Cornelian Bay, where crops were planted to supply the settlement with provisions.

A primary attraction of Tasmania for the colonial administration was a combination of available convict labour and apparent agricultural potential. Free settlers were offered inducements by the administration to take up the land it had claimed. Apart from promises of convict labour, land grants of one hundred acres each could be made available on the recommendation of Governor Collins. Newly-arrived settlers were fed and supplied with tools and seed from the government stores for an initial period of twelve months. Thus, from the earliest days of Tasmanian settlement, what was to become a recurrent pattern of government involvement in agricultural activity was established.

Methods of agriculture were necessarily primitive. What livestock had arrived belonged to the Government; without horses the settlers were effectively prevented from ploughing their new holdings. In general, the ground was simply roughly cleared and then broken up by hoe and the seed sown or, as often as not, simply chipped in. The anticipated sufficiency of convict labour failed to materialise. Yet despite this and other obstacles the settlers succeeded in the first season in harvesting a crop which gave them a small surplus for seed. Meanwhile, on the government farm similar progress had been made. By July 1804 it consisted of 19 ½ acres of wheat, 1 ¾ acres of oats and 2 ¼ acres of rye.

Additional livestock arrived in two shipments and Governor Collins, recognising the shortcomings of purely manual clearing and sowing, sold much of it among the settlers throughout the following year.

The shortage of labour, however, was not so easily remedied and in the following year it was to almost result in the extinction of the settlement; the lack of convict labour made self-sufficiency impossible. From 1805 to 1807 hunting native wildlife was virtually the salvation of the colony but, paradoxically, it served to worsen the overall situation. With a large proportion of assigned servants out in the bush hunting there was even less labour available for field work. The situation, already serious, was elevated to a crisis with the arrival of several shipments of desperately needed provisions in an inedible condition.

The settlement was eventually relieved, and with the famine past, a period of experiment and improvement began. By 1820 wheat had emerged

as Tasmania's principal agricultural produce; the climate favoured higher yields and the price differential resulting from its higher quality was regarded as being sufficient to outweigh the higher transport costs incurred in selling to the New South Wales markets.

By the early 1820s Tasmanian agriculturalists were sufficiently confident of their progress and potential to undertake further diversification and expansion, a confidence conveyed well by an 1823 address given to the Agricultural Society of Van Diemens Land by its President, Edward Ford Bromely:

> 'It is said that we are twenty years behind New South Wales in civilization; that colony was founded thirty five years ago. To the former has been directed all the capital—all the labour—all the advantages of every kind. The Tasmanian colony's subsequent progress has shown its capability.'

Yet the crudeness of the methods used to obtain this progress were to eventually take their toll. Farming methods involving little capital, but high labour input, combined with little or no crop rotation from season to season persisted. This continuous practice of monoculture was to result in the progressive impoverishment of the available arable land, the effects of which were to become particularly felt a century later in the 1930s.

The growth of the British textile industry encouraged a corresponding expansion of the State's wool industry; the 1830s and 40s saw the first utilisation of the subhumid midlands for sheep grazing. By 1850 Tasmanian sheep numbers exceeded the two million mark for the first time; their numbers were not to attain this level again until 1931. As a result, the wheat industry contracted somewhat, nevertheless wheat production still regularly exceeded that of New South Wales in this period.

The second half of the nineteenth century was marked by agricultural development in the northern regions of the State, led primarily by the growing numbers of small independent farmers. Their efforts, however, were not entirely successful partly due to the usual shortages of labour and capital. Of more significance was their failure to find any crop which could establish a comparative advantage. The newly-cleared forest lands of the north proved unsuitable for wheat and eventually potatoes were to emerge as a viable alternative in these areas.

In 1875, governmental involvement in agriculture was formalised with the establishment of a department under the direction of the Chief Inspector of Stock. This department was later incorporated into the Agricultural Bureau, which was set up mainly to administer regulations concerning both animals and plants.

The 1880s and 90s brought significant developments. The successful shipment overseas of apples in the eighties and butter in the nineties led to the establishment of orcharding in the Huon region and of dairying in the north. Both industries were to become characteristic of their respective regions and were to cement trade links with Britain, the early principal consumer of these commodities.

In 1911, the *Department of Agriculture Act* established the department in its present-day form.

From 1900 to 1914 Tasmanian agriculture prospered from the newly-established free trade within the Australian Federation as well as from its expanding overseas trade. Free trade had the effect of opening mainland markets to Tasmanian specialities. Potatoes, fruit and hops benefited considerably from this new access. Hops, for instance, doubled in acreage during this period. Rising prices after 1902 opened British markets yet further to Tasmanian wool and dairy products.

The First World War intervened to put an end to this expansionary trend. In a period of wartime shortage of labour, equipment and markets, beef production took precedence over dairying in many areas. The production of wool and fruit growing, however, continued at a moderate level of prosperity.

The early twenties saw a renewed vigour in Tasmania's agriculture in the wake of the optimism created by the Allied victory. After 1925, however, farming tended to become a rather less profitable activity. In 1926 a price support scheme was adopted for dairying and, as the prices of other products continued to fall, many non-dairy farmers turned their efforts to butter production, attracted by its apparent stability. The later twenties are characterised by the growing diversification of activity on farm holdings, principally as a hedge against the growing economic uncertainties of the period. The level of governmental involvement in agriculture increased. The Department of Agriculture was reorganised in 1927 and immediately embarked on a campaign of pasture improvement.

The arrival of the depression in the early thirties wrought changes which were to permanently alter the character of Tasmanian agriculture. The progressive impoverishment of arable soils and the low carrying capacity of pastoral properties became evident as farmers experienced the effects of inefficient techniques and low production. The later thirties, with the gradual lifting of the depression, were marked by the greater use of mechanisation, the widespread adoption of new seed varieties and the discovery and remedying of trace element deficiencies. This period witnessed a substantial investment in

pasture improvement, in contrast with the methods of the preceding century.

The advent of World War Two intervened to arrest these promising developments. Despite shortages the war brought at least one agricultural benefit to the State. The increased demand by the armed forces for conveniently packaged foods for front-line troops led to the introduction of vegetable canning facilities to Tasmania (Armed Forces Food Science Establishment). It still remains a significant activity in the northern areas of the State.

In 1944–45, the Commonwealth and State Governments initiated a land settlement scheme for ex-servicemen; land was granted in perpetuity at low rentals with an option to buy after six years.

The early 1950s was a period of recovery. The wool boom of 1951 provided funds for desperately needed re-investment, and the decade 1954–64 was one of unparallelled expansion. Farms tended toward greater size and specialisation while labour input and farm numbers declined. New Asian markets for wool were opened and governmental involvement increased. 1964 saw the setting up of the Artificial Breeding Board (known since 1977 as The Tasmanian Herd Improvement Organization), and A.I. techniques found increasingly wide favour. Today, almost one quarter of the State's dairy cows are bred artificially.

Far reaching changes faced Tasmanian agriculture in 1973, for in this year Britain finally made its long awaited entry into the European Economic Community. The upshot of this was the effective closure of the important and traditional British market for Tasmanian produce. The loss of the British market had a particularly adverse effect upon apple and butter production. It is to this cause that Tasmania's gradual abandonment of its traditional orcharding activities can be attributed.

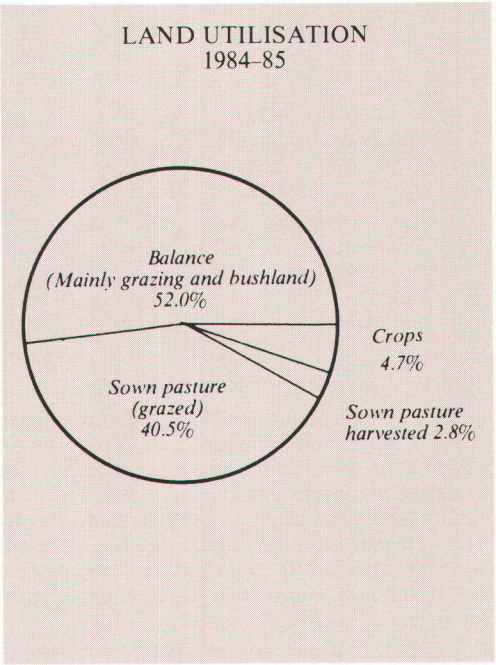
In recent years the trend has again been towards diversification of both markets and products. Attempts to reach further Asian markets have met with varying degrees of success and a number of entirely new, often experimental, ventures have been undertaken. The State's unique poppy industry is one early and particularly successful instance. Tasmania's production of alkaloids from the poppy plant for pharmaceutical preparations today runs third to that of the traditional producers, India and Turkey. Other ventures which have made considerable progress include the nascent wine industry — the State has currently some twenty vineyards in operation — and presently experiments are continuing in the areas of berry fruit of various kinds, deer farming, and the cultivation of pyrethrum.

15.1 LAND USE

At March 1985 a little over 2 161 000 hectares of land in Tasmania were being utilised for agricultural purposes. This represents some 31.6 per cent of the State's total land area of 6 833 100 hectares.

By far, the greatest proportion of Tasmania's agricultural land is given over to the grazing of sheep and cattle. This activity accounts for just over two million hectares, or 95.3 per cent of the total amount of agricultural land. Of this two million hectares of grazing land, 43.3 per cent is sown pasture, the remainder being simply cleared and fenced bushland.

The cultivation of crops covered 4.7 per cent of the total agricultural land, or some 100 000 hectares.



The area of agricultural land in Tasmania has been subject to a slight progressive decrease of some 111 800 hectares since the turn of the decade due to a number of factors including the cessation of activity on establishments due to economic reasons and the encroachment of industrial and residential usage onto agricultural holdings.

Just over 5 700 commercial farming establishments make up Tasmania's agricultural industries, a distinguishing feature of which is the high proportion of small holdings. Almost 50 per cent are under 100 hectares, and 85 per cent are less than 300 hectares. Only eight per cent of the total number of holdings exceed 1 000 hectares.

15.1 Number of Agricultural Establishments, Tasmania 1985

Area (ha)	*Hobart & Southern*	*Northern*	*Mersey-Lyall*	*Tasmania*
Under 100	588	658	1 225	2 471
100–299	403	677	696	1 776
300–999	263	381	171	815
1000+	215	195	28	438
Total	1 469	1 911	2 120	5 500

15.2 Number of Establishments Growing Principal Crops or Carrying Livestock, Tasmania 1985

	1980–81	*1983–84*	*1984–85*
Number of establishments growing —			
Barley for grain	325	453	353
Oats for grain	253	344	266
Wheat for grain	44	35	85
Hops	21	19	18
Orchard fruit	359	312	292
Potatoes	557	628	623
Carrying —			
Breeding ewes	3 100	2 853	2 747
Sheep (all types)	3 351	3 067	2 986
Breeding sows and gilts	443	303	284
Pigs	569	400	376
Dairy cows	1 524	1 452	1 302
Cattle (all types)	5 063	4 397	4 241
Total establishments	6 188	5 728	5 500

15.1.1 Sown Pastures and Principal Crops

The area utilised for the raising of crops for both stock and human consumption amounts to 1 017 300 hectares. Of this, the majority is used for the cultivation of unharvested feed; stock are simply turned out to graze upon the mature crop. This form of cultivation comprised 859 202 hectares, while a further 58 940 hectares of harvested pasture was stored in the form of hay, green feed or silage for later use.

The past five years has seen the growing popularity of silage as a form of feed storage. This can be attributed to the comparative ease with which silage can be collected and stored. Requiring only a covered pit and minimal preparation, silage eliminates the capital demands of hay baling and shed storage entirely.

15.3 Area of Sown Pasture, Tasmania, 31 March 1985 (Hectares)

Pasture	*1979–80*	*1984–85*
Pasture harvested —		
Hay	57 689	51 667
Seed	1 436	1 537
Green feed or silage	1 962	5 736
Pasture not yet harvested	849 942	859 202

The area planted to cereal grains consists mainly of barley, oats and wheat. Triticale, used principally for the feeding of poultry, continues to be a significant cereal grain crop in terms of area. The major grain growing areas are in the north of the State, centred around the Tamar Valley. The north-western regions continue to have the largest areas devoted to sown pastures. This predominance of the northwest can be related to the high proportion of the State's dairy cattle which are concentrated there. The principal green feed crops are oats and turnips, but other crops used for green feed include rape chou moellier, barley, millet and wheat.

15.4 Area of Selected Principal Crops, Tasmania 1984–85 (Hectares)

Crops	*Area*
Cereals for grain	26 878
Legumes mainly for grain	1 535
Hay	2 550
Orchard fruit	2 847
Berry and small fruit	319
Oil poppies	4 747
Hops	869
Vegetables	15 929

Oil poppies were initially grown on the mid-northwest coast; more recently they have been grown in other northern areas of the State, although adverse weather conditions, particularly excessive rain, have proved to be a problem in some areas. 1979–80 saw a sudden contraction in the area of poppies planted due to the closure of the United States market to the Tasmanian product. Subsequent negotiations reopened this market, thus ensuring the industry's survival.

15.2 LIVESTOCK

The total number of cattle and pigs in Tasmania has decreased somewhat in the last few years, while that of goats, deer and poultry have increased. In 1985 sheep numbers rose to a new record level, while Tasmania's goat population showed a steady, if not spectacular, increase.

15.5 Livestock Numbers, Tasmania, 1985 ('000)

Livestock	*1979*	*1985*
Sheep and lambs	4 156.6	4 780.1
Meat cattle	493.3	405.1
Milk cattle	163.6	148.5
Pigs	60.8	47.3
Goats	2.1	11.4
Deer	n.a.	2.2
Poultry	3 743.0	4 104.5
Bees (hives)	12.1	11.2

15.2.1 Sheep

The predominant breed of sheep in Tasmania is the Polwarth, accounting for 40 per cent of sheep numbers. The Polwarth is particularly suited to cool, moist areas or to sparse grazing. This makes them particularly suitable to Tasmanian conditions where sheep farming suffers from the climatic limitations of summers too dry and winters too cold for the adequate growth of pasture throughout the year. Tasmanian Polwarth flocks attracted international attention in 1985 when a Polwarth ram from the Rockthorpe Stud at Cressy, won the grand championship at the World Conference of Polwarth-Ideal Breeders in Uruguay, and was subsequently sold for a world record price.

Merino numbers have been gradually increasing in recent years; their finer wool attracting growers seeking to sell to the lucrative Japanese markets.

15.6 Breeds and Number of Sheep, Tasmania, 1982 ('000)

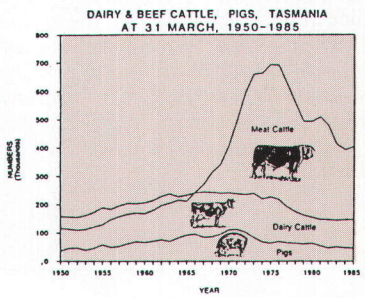
Breed	*Rams, 1 year and over*	*Other sheep and lambs*	*Total*
Border Leicester	2.6	62.5	65.1
Cormo	1.7	138.4	140.1
Corriedale	5.0	517.2	522.1
Dorset Horn	1.8	47.8	49.6
Merino	7.6	499.6	507.2
Poll Dorset	6.2	65.3	71.5
Polwarth	16.9	1 780.9	1 797.8
Romney-Marsh	1.5	61.5	63.0
Southdown	2.2	30.0	32.2
Suffolk	3.4	28.0	31.3
Other Breeds	0.8	18.5	19.3
Merino comebacks	1.8	489.0	490.8
Crossbreds	0.8	563.2	564.0
Other (not spec.)	1.3	95.2	96.6
Total	53.5	4 397.2	4 450.9

15.2.2 Cattle

The main breeds of cattle in Tasmania for beef production are the Hereford, the Aberdeen Angus, Shorthorn, Murray Greys and the Devon. In recent years new breeds such as the Charolais, Santa Gertrudis, Simmental and the Main Ainjou have been introduced by farmers keen to utilise the advantages offered by crossbreeding. This development is in contrast to the situation which existed previously, when beef production was not a great priority and beef cattle were generally culled from dairy herds. Even today, only about 10 per cent of beef producing properties rely upon beef as a sole source of income. Stocking rates vary greatly, ranging from one beast to 16 hectares on undeveloped country, to two and a half beasts to a hectare on improved pasture. The majority of Tasmanian beef cattle are run on improved pasture.

15.7 Cattle Numbers, Tasmania ('000)

	1984	*1985*
Milk cattle	148.5	148.5
Meat cattle	393.6	405.1
Total	542.1	553.6





The distribution of the State's beef cattle is subject to considerable variation, with some 41 per cent in the north-west, 38 per cent in the remaining northern areas and only 24 per cent of the total number are found in the south.

15.8 Cattle Distribution, Tasmania, 1985 ('000)

Region	*Dairy cattle*	*Beef cattle*	*Total*
South	60.0	75.3	81.7
North	53.7	175.9	230.0
North-west	86.9	149.5	236.6
Total	147.5	405.1	553.6

15.2.3 Pigs, Goats and Deer

The indications of activity in the pig industry, the number of pigs slaughtered and the number of breeding sows, each show a steady, though gradual, decline over recent years. The number of agricultural establishments with pig herds however has fallen substantially. This decline in the pig industry can be attributed to increases in feed costs. Tasmanian pig farmers are forced to import wheat for feed, due to the quantities required by intensive feeding techniques not being available locally. With feed prices fixed by the Australian Wheat Board in response to international market conditions, world fluctuations in price have marked implications for the local industry.

15.9 Pigs, Tasmania

	1980	*1983*	*1985*
Number of establishments	690	403	376
Number of ('000) —			
Boars	800	600	500
Breeding sows and gilts	8 573	6 993	5 500
Other pigs (incl. suckers, weaners, and growers)	54 100	42 900	40 600
Total pigs	63 500	50 600	47 400
Pigs slaughtered	88 700	77 300	83 100

Tasmania's goat population has grown steadily, if not spectacularly, and currently they number 11 400. High prices have been received for stud animals and considerable numbers have been exported to New Zealand for Mohair and Angora production. Goat products would appear to be finding wider public acceptance, with at least one establishment marketing goat's milk commercially in Tasmania.

Commercial deer farming, while remaining very much in its infancy, continues to show potential for further development. There are presently nine licensed farmers in the State with other licence applications under consideration. Many farmers see in deer a profitable sideline, as they can be grazed on the lush pastures which are maintained for dairy production.

15.10 Deer, Tasmania

Year	*Number*
1982	1 000
1983	1 700
1984	2 100
1985	2 200

15.3 LIVESTOCK PRODUCTS IN TASMANIA

In the period since 1979, Tasmanian production of livestock commodities has been subject to considerable variation in output, due to combinations of various factors, including economic, marketing and climatic conditions.

15.11 Livestock Production, Tasmania Year Ended 30 June

Product	*Unit*	*1979*	*1985*
Meat —			
Beef and veal	tonnes	47 421	31 701
Mutton and lamb	"	14 716	18 998
Pigmeat	"	4 834	4 752
Poultry	"	4 069	4 824
Wool —			
Sheep and lambs shorn	'000	4 319	5 000
Shorn wool	tonnes	17 442	20 295
Other wool	"	1 636	1 640
Total wool	"	19 079	21 935
Whole milk	million litres	365	346
Eggs	'000 dozen	3 188	3 396
Honey	tonnes	684	1 047

15.3.1 Meat

The beef and veal industry provides a good example of the operation of these sort of factors in relation to livestock commodity production. Tasmania's principal overseas beef markets are American, with some exportation of special and prime beef to Japan. Tasmanian exports have been indirectly affected by internal legislative measures taken to protect the US economy. Legislative intervention by Congress, in the form of an export-enhancement program, was designed to reduce US agricultural surpluses of wheat, beef and dairy products. In connection with this effort, restrictions were placed on imports and attempts made to stifle production. Thus exports of Tasmanian beef were dealt a double blow, apart from the limitations placed on imports, the US administration offered a subsidy to encourage

the slaughter of dairy herds. The resulting beef stocks were sold as hamburger beef, which has been the principal export market in America for Australian beef.

15.12 Meat Exported from Tasmania (Tonnes)

Meat	*1978–79*	*1984–85*
Beef	18 977	10 631
Lamb	856	2 597
Mutton	3 329	3 232
Pigmeat	265	61

Added to this are the lingering effects of the drought conditions experienced in the State over the last three seasons. Production has dropped as a result with farmers reluctant to replace stock slaughtered.

Interstate markets have not been affected to the same degree, experiencing only a slight drop in 1984–85 from the previous year. Australian consumption remains fairly stable; the Australian Meat and Livestock Corporation report that 97 per cent of Australians continue to eat meat regularly.

15.13 Gross Value of Livestock Slaughtered, Tasmania ($ million)

Livestock	*1980*	*1985*
Cattle and calves	65.5	80.0
Sheep and lambs	21.4	17.9
Pigs	8.0	8.8
Poultry	4.9	8.6
Total	100.3	115.3

Interstate lamb and mutton exports from Tasmania are generally subject to highly variable mainland markets. Stocks of lamb are often sought from Tasmania by mainland supermarket chains when conditions have resulted in insufficient quantities being produced locally. Additionally, some difficulties have been experienced in gaining footholds on Japanese markets, but growers remain confident that the potential of Middle Eastern markets for processed lamb will be realised.

15.3.2 Wool

When a 90 kilogram bale of super-fine wool produced by the Kelvin Grove Merino Stud of Nile brought 17 500 cents per kilogram at the December 1985 wool sales in Launceston, Tasmania regained the world record for superfine wool prices. The record price was paid by the Japanese company, Fujii Keori, who had in February 1985 already offered a record price of 16 800 cents per kilo which was later surpassed in New South Wales.

Sales during the year were generally encouraging for the industry, with price increases not being confined to the superfine wools alone.

15.14 Wool Production and Value, Tasmania

Season	*Quantity (tonnes)*	*Gross value ($ million)*
1978–79	19 079	42.0
1980–81	20 049	50.8
1982–83	21 680	58.9
1983–84	21 887	64.7
1984–85	21 935	73.3

Crossbred and Polwarth fleece brought prices between 10 and 15 per cent higher than previously, while comeback wool showed an increase of 5 per cent. The total value of wool production for the period of 1984–85 amounted to $73.3 million.

15.3.3 Dairy Products

Dairy production in 1984–85 has been valued at some $55 million. Although the total number of dairy farmers has dropped by 16 per cent, milk production has increased. The demand from local producers of cheese, confectionary and processed milk products has continued to expand.

15.15 Milk Utilisation, Tasmania (million litres)

Year	*Whole milk intake by factories (million litres)*	*Market milk sold (million litres)*
1980–81	288	43
1981–82	295	44
1982–83	323	45
1983–84	339	43
1984–85	346	44

15.15 Milk Utilisation, Tasmania, *cont.* **(tonnes)**

Year	*Butter*	*Cheese*
1980–81	n.p.	14 147
1981–82	3 964	15 167
1982–83	5 768	14 100
1983–84	6 191	14 080
1984–85	7 690	12 567

Source: Australian Dairy Corporation.

15.3.4 Honey

Honey bees are not native to Tasmania but were first introduced during the 1830s. They flourished, with copious amounts of honey being produced by many swarms, and within a few years bees could be found throughout many

parts of the State. It is interesting to note that the bees found today in the Tarraleah area are almost pure descendants of the first black bees introduced to the State.

Although the clearing of land made some inroads into honey production, as time went by the development of clover based pastures and the introduction of the blackberry diverted honey production from predominantly forest based flora to a mixture of forest and ground flora.

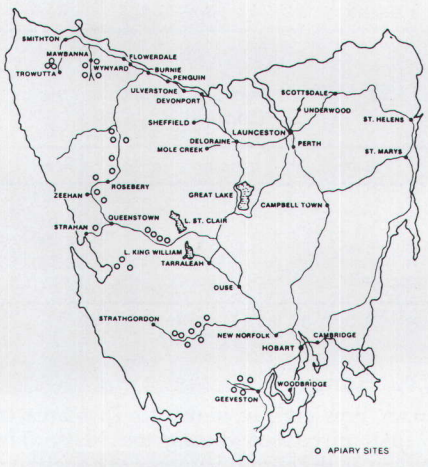
When, early this century, roads were opening up the West Coast beekeepers began to exploit the leatherwood tree to produce leatherwood honey, unique to Tasmania, and today export to many parts of the world.

Approximately 67 per cent of Tasmania's honey production is from leatherwood with blackberry and clover making up the bulk of the remainder. Tasmania's Blue Gum (*Eucalyptus globulus*) provides a honey flow every other year for Southern beekeepers.

15.16 Honey Production, Tasmania 1984–85

Variety	*Tonnes*
Leatherwood	721
Other	326
Total	1 047

Most of the State's commercial beekeepers are located in the north of the State where conditions are most favourable. Every summer Tasmania's beekeepers take their 11 000 hives to the leatherwood blossom on the West Coast where sites containing up to 50 hives are set up in clearings by the roads in the area.



Location of Apiaries
Source: The Tasmanian Beekeepers' Association

Elsewhere, the extensive pastures of the North-East and North-West Coasts are rich in a variety of clovers including the well-known 'Wild White' (*Trifolium repens*), and the less common 'Red' clover. Both produce a honey of a very high quality, ranging in colour from water white to pale amber, with a mild, sweet flavour which candy with an extra fine grain. Known simply as 'clover' honey, it has found a ready market in Japan.

In 1984–85 the average productive hive produced about 105 kilograms of honey at a gross value of just over $1 million. Beekeepers, however, are not expecting such a productive 1985–86 season owing to the particularly wet summer experienced this season in the State.

15.4 PRINCIPAL CROPS

The gross value of all crops produced in the State represents about one third of the total value of Tasmanian agriculture production. Despite a fall in apple production having been experienced since the early 1960s, other crops remain important to the State's economy, particularly potatoes which today constitute one of Tasmania's principal interstate exports.

15.17 Principal Crops, Tasmania, 1984–85

Crop	*Production (tonnes)*	*Value ($m)*
Cereals for grain	54 423	8.0
Legumes	3 299	0.8
Hay	222 226	14.0
Fruit	63 091	29.3
Vegetables	286 742	57.8
Hops	1 341	n.a.
Peas, for processing	31 293	8.1
Onions	29 383	10.9
Carrots	13 175	1.8

15.4.1 Vegetables and Hops

The principal vegetables cultivated for human consumption in Tasmania other than potatoes, include peas, both French and runner beans and onions. Additionally, hops are cultivated for brewing purposes. Such activity is situated in some areas of the north-east, adjacent to canning and processing facilities. These areas account for nearly a third of Australia's entire pea production. The main potato-growing area is on the north-western basalt plateau, where the rich krasnozem soils are particularly suitable for the production of high grade potatoes. The main varieties are Kennebec and Russet Burbank.

Falling prices over the year 1984–85 have been attributed to the Closer Economic Relations Agreement with New Zealand and a parallel lack of tariff protection against cheap European and North American imports.

15.18 Vegetable and Hop Production, Tasmania, 1984–85

Crop	*Production (tonnes)*	*Value ($m)*
Potatoes	203 472	27.4
Peas, for processing	31 293	8.1
Onions	29 383	10.7
Carrots	13 175	1.8
Beans, French and runner	9 419	2.1

Hop growing has long characterised the broad alluvial terraces of the Derwent around New Norfolk. The almost universal use of the 'Pride of Ringwood' hop variety has increased per hectare yields considerably in recent years. Hops for export are dried, hammermilled, compressed into pellets and sealed in air-tight containers for shipping.

15.4.2 Fruit

Although Tasmania's once buoyant apple industry has declined significantly, particularly since the peak experienced in the mid-sixties, the orchard areas of Tasmania have been in decline for quite sometime. This trend has continued into 1985 with apple and pear production declining by some 8 000 tonnes from the previous season. Competition from countries such as Chile, Argentina and Brazil has had an adverse affect upon sales in Asian markets.

15.19 Fruit Production, Tasmania

Variety	*Quantity (tonnes)*	
	1983 season	*1985 season*
Orchard fruit —		
Apples	69 421	61 624
Pears	1 479	1 467
Apricots	?	204
Cherries	10	46
Peaches	235	8
Plums & Prunes	20	14
Nectarines	6	19
Berry & small fruit —		
Blackcurrants	832	730
Raspberries	257	269
Grapes	241	100
Strawberries	123	104
Loganberries	59	47
Gooseberries	7	7

Fruit growing is nevertheless an economically important activity within the State. Over recent years the production of fruit has provided about 23 per cent of the gross value of the State's crops. A variety of berry and small fruit crops, including grapes, have been established in recent years and have made considerable progress. American markets have been established by growers for blueberries, and raspberry production is proving successful. Although the 1984–85 season was marred to some extent by the heavy rains experienced in Tasmania, the State Government has allocated funding to ensure that development in this area continues in the future.

New Raspberry Varieties

A new raspberry industry is being developed in the State based on new varieties and new markets. In place of the jam varieties previously grown, the new development is concentrating on producing fresh fruit for the export table trade, initially interstate, then South East Asia and the United States of America.

For years the Tasmanian raspberry industry had been largely isolated from the external pressures of changing consumer demand and market forces. For decades after they had disappeared from most other production areas of the world, the Tasmanian industry had continued to use the two varieties Red Antwerp and Lloyd George. Red Antwerp was first grown in the State in 1871.

New varieties were introduced but made little impact and either faded away or remained as curiosities grown by a few enthusiasts, the American variety, Williamette being the only one to both persist and slowly increase in quantity. Thus, when external pressures finally caught up with the industry in 1982, and the demand for processing fruit slumped, growers had to look at new markets requiring new varieties and technology.

Strangely, a little known local variety called Collins Defiance which had been promoted in the forties as a canning fruit, but had subsequently almost disappeared except for a small planting at Lower Longley suddenly re-emerged as the basis for a new industry. Its firm dry fruit proved ideal for airfreight export from Tasmania and with improved packaging techniques, regular consignments to mainland capitals commenced in 1983. Plants lifted from the original two hectare planting have been used in the establishment of a further 10 hectare planting at Deloraine which will come into production in 1986, producing an estimated 500 000 punnets for export as fresh fruit.

Because of economic and consumer pressures total dependence on Collins Defiance is likely to be short lived and there is already mounting

interest in new varieties recently introduced from overseas. The first commercial sales of fruit from the autumn fruiting Heritage occurred in 1985 to a very lucrative market and Glen Cova, a particularly early variety, sold well interstate in 1983 and 1984.

Plants of new introductions Chilcotin, Haida, Nootka and Skeena are becoming available in commercial quantities and fruit should start to appear in 1987. Patent rights for new British varieties Glen Prosen, Glen Moy and Autumn Bliss have been negotiated by a private nursery and commercial release is expected in 1987.

Thus, after decades of unchanged variety structure the industry can be expected to increase its varietal base and consequently its own stability. Consumers can expect to be offered a wider range of flavours, textures and appearances as well as an extension of the period fresh raspberries are available during the year.

15.4.3 Oil Poppies

The area cultivated for oil poppies has increased greatly in the last decade. As a result production has increased fourfold from four tonnes in 1974 to 40 in 1984. The 1984–85 season returned to a record tonnage per hectare due to wet conditions at sowing and dry conditions during the growth of the crop. The result of the ideal conditions was a 22 per cent increase in the average return per hectare.

However, this expansion may be checked in the future, for Australia has been under some pressure from international agencies such as the United Nations Commission on Narcotic Drugs to cut back production in order that international stockpiles may be reduced.

15.4.4 Essential Oil Crops

Essential oils had their beginning as a crop in Tasmania in the 1920s. At that time a few grams of true lavender (*Lavandula angustifolia*) were imported by the Denny family at Lilydale. These seeds, followed by plant selection and oil evaluation, formed the basis of the present day enterprises still run by the Denny family.

Lavender was followed in the 1950s by peppermint, but the area of this crop did not expand appreciably until the late 1970s. Since that time the increasing interest in alternative crops combined with the depression in prices of other agricultural products has seen a growth in the area and number of essential oil crops grown.

Peppermint and spearmint are both members of the family *Labiatae* which produce an essential oil, extracted by distillation, in small glands on the leaves, flowers and stems. The crop is perennial and is established by vegetative propagation of stolons.

Peppermint oil is used mainly as a flavouring component in a very wide range of products, including confectionary, pharmaceuticals and liqueurs. The major component which is immediately identified upon tasting is menthol. However, components such as menthone, menthyl acetate and menthofuran go to impart the balanced flavour which is characteristic of peppermint oil.

Tasmania is ideally situated climatically for the expansion of peppermint and other essential oil crops. Mild, warm days in summer with cool evenings, and a day length in excess of 15 hours are the necessary environmental conditions required for the production of high quality peppermint oil.

The industry in Tasmania is based on establishing and maintaining a sound reputation in the market place for a regular supply of consistent quality products. To achieve these objectives crops are sampled regularly through the growth cycle to aid harvest predictions by assessments of oil quality and yield.

Fennel, which belongs to the family *Unbelliferae*. is another plant under investigation for essential oil production. This plant, together with other members of this family, produce fruits which contain a high proportion of steam extractable aromatic oil. Fennel as a crop is to be treated as a short term perennial which is initially established from seed. This crop will be complementary to peppermint as it matures at a different time and can therefore make more efficient use of harvesting and distillation equipment.

A number of other essential oil crops are at various stages of development including parsley, caraway, boronia, and blackcurrant bud.

15.5 SERVICES TO AGRICULTURE

15.5.1 Agricultural Quarantine

Agricultural quarantine is administered by Government to protect all facets of agriculture and the environment with the aim of preventing the introduction or spread of pests and diseases. Legislation by the Commonwealth and the States provide the authority for any action taken.

In 1904 authorities from each State and the Commonwealth recommended the creation of a Federal Quarantine Service. In 1906 the States agreed to hand over quarantine administration of all overseas imports to the Commonwealth, and this led to the *Quarantine Act* of 1908. On 1 July 1909 the Federal Quarantine Service commenced operation.

Today, the Commonwealth retains this responsibility for overseas imports, and it discharges its responsibilities under Section 51 of the Constitu-

tion. The Department of Primary Industry delegates the operational aspects of plant and animal quarantine to the State Department of Agriculture and reimburses them for the costs involved.

The basis for Tasmanian commercial rural production is introduced livestock and plant material. State legislation restricts the entry of such goods and stock from interstate appropriate to the pest and disease risk involved. Measures taken under the *Quarantine Act* function on a similar basis and are arrived at in consultation with the States. Commonwealth restrictions apply uniformly throughout Australia with provision made for specific State requirements.

Quarantine measures make it possible for industry to obtain the best available material from overseas with adequate safeguards as appropriate to its pest and disease status. At times, this may involve extended periods before release, but such delays are preferable to costly controls and the loss of possible market opportunities.

15.5.2 Research and Development, Department of Agriculture

On an annual basis approximately 1/3 of the resources available to the Department of Agriculture are committed to programs of agricultural research and development. The principal aims of this research is to assist the development of new industries, to foster the adoption of improved agricultural technologies and to provide solutions to current agricultural problems. As such, the research is predominantly of an applied nature.

To facilitate these objectives the Department is currently segmented into six major groups designed to reflect each area of Tasmanian agriculture. These groups are each responsible for research and developments in their respective areas, and are assisted by separate specialist units providing scientific support.

Priorities for the establishment of departmental research and development projects arise as a result of discussion and consultation from both within the department and discussion with agricultural producers and industries. Some fifteen Industry Liaison Committees meet with departmental personnel on a regular basis to discuss industry problems and the progress of departmental research.

Creative advisory projects, such as demonstrations of current lines of research, go to create a continuous process of information production, disseminated through the scientific media, the popular press, the Department's own publications unit and by personal contact with producers.

The Department has only limited physical and financial resources to conduct its research activities, and thus it is considered necessary to subject project proposals to a system of scrutiny and evaluation at all stages of development. This ensures a co-ordinated approach to research to guarantee the most effective use of available resources.

The Department operates six research farms throughout the State for extensive animal research. Funding for the Department's activities are provided mainly by the State Government, with some contribution from industry sources. The latter sources accounted for approximately 10 per cent of the total research budget during 1984–85.

15.5.3 Veterinary Services, Department of Agriculture

The Animal Health Division of the Tasmanian Department of Agriculture supervises and maintains all Government veterinary services. It is administered by the Chief Veterinary Officer, and comprises two branches, the Veterinary Field Branch and the Veterinary Laboratory Branch, each headed by their respective chiefs assisted by senior Veterinary Officers in specialist and administrative roles.

The principal objectives of veterinary services relate to maintaining Tasmania's firmly established control of stock disease. They thus revolve around disease detection and prevention. In some instances specific policies have resulted in actual eradication. Examples are provided by bovine tuberculosis, bovine brucellosis and the sheep ked. Considerable progress has been made with the Hydatid Limitation Program and this disease could be the next to be eliminated.

Another important task of the Veterinary Field Branch is the control of rural vermin. Where poisoning is necessary, the requisite chemical can be supplied and laid by V.F.B. officers.

These same officers also inspect livestock in saleyards, monitor sheep body lice in district flocks, examine offal in abattoirs for hydatid cysts, test dogs for hydatids, collect blood samples from animals being screened for disease free accreditation, maintain swill feeding surveillance and generally assist their supervising veterinary officer.

A decline in clinical work and reorganisation of administrative tasks has markedly altered the role of Veterinary Officers in recent years. Basically, each officer is responsible for the health, welfare and disease control of the livestock in his district, and in some cases, actual treatment of animals as well. They must also supervise the Field Officers and report regularly to senior staff.

In addition to Hobart, there are 13 centres throughout the State, each responsible for its respective regions.

Special duties superimposed upon the general activities of individual Veterinary Officers include

responsibility for mastitis control, quarantine measures, supervision of artificial breeding, hydatid lecturing and the investigation of whale strandings. Additionally, in the future, every District Officer will be involved in abattoir inspections as a consequence of recently enacted meat hygiene legislation.

Backing up the Field Branch staff is the Veterinary Laboratory Branch at Mt Pleasant Laboratories, which carries out the pathological, chemical, seriological and bacteriological tests on material submitted by field and private veterinarians. The service offered is an efficient and substantial contribution to the high standard of animal disease control prevailing in Tasmania.

15.5.4 Soil Erosion

Soil erosion has come to be recognised as a significant problem facing Tasmanian agriculture today. The extent and nature of erosion is such that it demands effective measures if a gradual loss of irreplacable topsoils is to be prevented. Soil erosion occurs under various conditions. The systematic and frequent clearing of all cover from agricultural soils, the lack of effective land drainage and the clearing of trees all lead to the erosion of topsoil by the action of both wind and rain. Additionally salinity problems are frequently experienced as a result of erosion.

With the current trend among producers towards more intensive and continuous cropping in order to remain economically viable, soils have become subject to increasing rates of erosion. This is naturally of concern to growers, as the high value of crops means that damage through soil degradation can lead to heavy financial losses. Although commercial crops generally require a topsoil depth of only 25 to 30 centimetres, it has been found that in some cases in Tasmania, erosion has reduced the available depth to as little as only 10 centimetres.

In order to counter this problem, a number of studies are being undertaken to devise conservation strategies. Additionally, various government departments have introduced measures to contain and halt present levels of erosion on lands under their charge. Agencies such as the Department of Main Roads, The Forestry Commission, The Lands Department and The Hydro-Electric Commission, all employ officers to run conservation programs on the various projects that are undertaken by the agencies. As well as their material efforts, such departments produce guidelines and provide advice where possible. In 1980 an Inter-Departmental Standing Committee on Soil Conservation was established with representatives from all government bodies with responsibilities and expertise in soil conservation. Advised by a Technical Committee, it is responsible for the monitoring, evaluation and coordination of policy.

The University of Tasmania recently established the first Tasmanian project to measure the degree of erosion and soil loss created through rainfall run-off, in the long term it is hoped that a Statewide soil survey directory could be compiled.

In 1984–85 Tasmania received $185 000 through the Federally funded national Soil Conservation Program. This money assisted in financing eight separate projects including land resource surveys, demonstrations of soil conservation techniques and research and educational projects.

15.5.5 Tasmanian Rural Youth 1932–1985

Rural Youth came into existence as an amalgamation of a number of earlier youth groups which had been established within the Tasmanian farming community.

Of these, the earliest was formed by Mr Don Bennet, a schoolteacher at Preolenna, in 1932. The Calf Club, as it was known, had 14 members; the idea of rural youth groups spread rapidly along the northwest coast of the State. These early groups were based on the American model provided by the so-called 4T clubs whose motto 'Training, Trying, Testing and Triumphing' was adopted locally. By the 1940s the clubs were staging a regular program of organised competition in such skills as ploughing and tractor driving.

In 1950 these north-west clubs joined the Junior Farmers Club of Tasmania, based at Deloraine, and this increased their numbers to the extent that they attracted the interest of the Department of Agriculture. The Department appointed a supervisor and two staff to enable the clubs to maintain a statewide organisation.

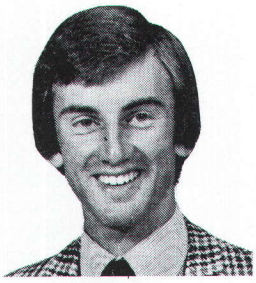
In July 1966 the title of The Rural Youth Organisation of Tasmania was adopted to achieve uniformity with similar bodies which existed on the mainland.

The organisation runs on a three-tier system based on club, regional and State groupings, holding demonstrations, lectures, social events and competitions in a wide variety of rural skills. Exchange programs, funded by many of the major agricultural companies, exist and they provided opportunities for exchange of members between Australia, New Zealand, Britain and the USA.

Tasmanian Rural Youth recently purchased its own farm of 170 hectares at Carrick where, under the leadership of its current President, Russell Cripps, the organisation hopes to both continue and extend its activities.

Rural Youth — Young Farmer of the Year Award

The annual Rural Youth — Young Farmer of the Year Award for 1984–85 was won by John Bell, 30, of Carrick.



The competition sponsored by Westpac, was held at Hagley and tested the skills of the competitors in a wide variety of all agricultural and related activities ranging from ploughing through seed identification and meat judging to public speaking. Through the award Rural Youth seeks to encourage a high level of competence among that section of the rural community who will eventually be responsible for the growth and development of Tasmanian agriculture.

15.6 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Principal Agricultural Commodities, Tasmania (Preliminary) (7111.6), annual.

Livestock and Livestock Products, Tasmania (7221.6), annual.

Crops and Pastures, Tasmania (7321.6), annual.

Apples and Pears in Cool Stores, Tasmania (7323.6), monthly seasonal; June to November.

Fruit, Tasmania (7322.6), annual.

Agricultural Land Use and Selected Inputs, Tasmania (7411.6), annual.

Value of Agricultural Commodities Produced, Tasmania (7501.6), annual.

ABS Publications Produced by the Canberra Office:

Agricultural Industries Structure of Operating Units, Australia (7102.0), annual.

Principal Agricultural Commodities, Australia (Preliminary) (7111.0), annual.

Shearing and Wool Production Forecast, Australia (Preliminary) (7210.0), annual.

Sheep Numbers, Shearing and Wool Production Forecast, Australia (7211.0), annual.

Cereal Grains: Estimates of Area Sown, Australia (7312.0), annual.

Value of Principal Agricultural Commodities Produced, Australia (7501.0), annual.

Selected Agricultural Commodities, Australia (Preliminary) (7112.0), annual.

Livestock and Livestock Products, Australia (7221.0), annual.

Livestock Products, Australia, (7215.0), monthly.

Viticulture, Australia (7310.0), annual.

Crops and Pastures, Australia (7321.0), annual.

Fruit, Australia (7322.0), annual.

Agricultural Land Use and Selected Inputs, Australia (7411.0), annual.

Other Publications:

Australian Meat and Livestock Corporation, *Annual Report* Watkins and Murphy, Sydney.

Department of Agriculture, *Annual Report*, Government Printer, Tasmania.

Tasmanian Dairy Industry Authority, *Annual Report*, Government Printer, Tasmania.

Reid, R.L., *A Manual of Australian Agriculture*, Heinemann, Melbourne, 1981.

Soft Fruit Industry Board, *Annual Report*, Government Printer, Tasmania.

Sulyak, T., *The Farmers Handbook*, The Herald and Weekly Times Ltd., Victoria, 1978.

Chapter 16

MINING

		Page No.
16.1	**Geology of Tasmania**	245
16.1.1	Proterozoic Era	245
16.1.2	Cambrian Period	245
16.1.3	Ordovician to Early Devonian Periods	245
16.1.4	Middle and Late Devonian Periods	246
16.1.5	Late Carboniferous to Triassic Periods	246
16.1.6	Jurassic and Cretaceous Periods	246
16.1.7	Tertiary Period	246
16.2	**Exploration**	246
16.2.1	Mount Read Volcanics	248
16.3	**Mineral Production**	249
16.3.1	Metallic Minerals	249
16.3.2	Fuel Minerals	249
16.3.3	Construction Materials	249
16.3.4	Non-metallic Minerals	249
16.4	**Mineral Processing Industries**	250
16.5	**Mining 1985**	250
16.5.1	And the Future?	251
16.6	**References**	252

Chapter 16

MINING

The economy of Tasmania, past, present and future, is inevitably tied to its rich mineral resources. The State retrieves a share of riches from the ground greatly out of proportion to what could be expected from an area the size of Tasmania. Tasmania's area, including smaller islands, is approximately 68330 square kilometres, 0.9 per cent of the total area of Australia and in 1983–84 the value of minerals produced in Tasmania was 2.1 per cent of the Australian total. For more than a century the Tasmanian mining industry has contributed billions of dollars to the State's economy and stimulated many of the State's developments.

16.1 GEOLOGY OF TASMANIA

The geological history of Tasmania spans about 1000 million years and includes diverse periods of widespread volcanic activity, deep sea sedimentation, continental shelf sedimentation, granite intrusion and major folding and faulting action. Eventually there developed a region extremely rich in mineral resources.

Most of the geological action took place between about 1000 to 350 million years ago. It was during these early periods that most of Tasmania's major mineral resources formed.

16.1.1 Proterozoic Era

(about 1000 to 600 million years ago)

The earliest rocks were formed in western Tasmania where sandstone and mudstone collected in ancient shallow seas. At about 800 million years ago, a period of intense folding and metamorphism caused recrystallisation of the sedimentary rocks by a combination of heat and pressure to form much harder quartzite and schist. These 'metamorphosed rocks' extend from Port Davey north to the Central Highlands, and their resistance to erosion has given rise to much of the rugged terrain in south-west Tasmania.

Meanwhile, sandstone and mudstone continued to accumulate in shallow seas in western Tasmania. During a brief episode of basaltic volcanism large deposits of iron formed on the sea floor, including the magnetite deposits at Savage River.

Late in the Proterozoic, about 700 million years ago, there occurred a second period of folding and uplift followed locally by granite intrusion.

16.1.2 Cambrian Period

(600 to 500 million years ago)

In the early part of the Cambrian Period there developed large elongate basins that collected sediment shed from the older pre-Cambrian regions. These basins filled with sandstone, mudstone, limestone-dolomite and basaltic volcanic rocks. During a pause in the sedimentation cycle, serpentinised ultramafic rocks were upthrust from deep within the Earth's crust into the Cambrian sediments. Small but significant deposits of copper, nickel, osmiridium, chromium and asbestos occur in the serpentinites.

During the Middle Cambrian, a chain of volcanoes formed along the coastline of the largest sedimentary basin, flanking the central core of Late Proterozoic metamorphosed rocks. The ensuing pile of submarine and terrestrial lava flows and volcanic ash, known as the Mt Read Volcanics, contains economically important deposits of a number of minerals. These minerals include zinc, lead, copper, gold and silver at Rosebery, Hercules, Que River and Hellyer, and copper, gold and silver at Mt Lyell.

16.1.3 Ordovician to Early Devonian Periods

(500 to 390 million years ago)

Thick deposits of conglomerate collected on the edge of widespread shallow seas in which also accumulated sandstone, mudstone and limestone. The conglomerate now forms most of the peaks of the West Coast Range, including Mt Owen, Mt Lyell, Mt Murchison and Mt Roland. The limestone contains small deposits of lead and zinc, and is an important source of lime.

16.1.4 Middle and Late Devonian Periods

(about 390 to 330 million years ago)

A vigorous period of widespread folding and uplift was followed by granite intrusion into the folded sediments and volcanic rocks of the Early Palaeozoic, and the Proterozoic rocks. These intrusions produced mobilisation of metals and minerals within the molten granite bodies and resulted in the formation of numerous mineral deposits. These deposits include the large renowned tin deposits at Renison, Cleveland and Mt Bischoff; the tungsten (scheelite) deposits at King Island and Hampshire; the tin-tungsten (wolframite) vein deposits at Rossarden, Storys Creek and in the Forth Valley at Moina and Oakleigh Creek; the gold reefs at Beaconsfield and in the Mathinna-Mangana region; and the rich silver, lead and zinc mines at Zeehan, Tullah and Magnet.

16.1.5 Late Carboniferous to Triassic Periods

(about 300 to 200 million years ago)

A period of widespread glaciation preceded the development of large inland basins in which sediment collected at a time when there was rapid evolution and spread of biological and botanical forms. Plant and 'animal' life began to flourish and their remains commonly became trapped in the sedimentary layers and formed source materials for coal, oil and gas. Thus oil shale occurs in the Mersey Valley and there are numerous deposits of coal, though mainly in the Fingal Valley.

16.1.6 Jurassic and Cretaceous Periods

(about 200 to 65 million years ago)

During the Jurassic Period enormous volumes of dolerite intruded along faults and weaknesses from deep within the Earth. The dolerite spread laterally as it neared the surface and formed thick, flat-lying sheets, remnants of which cap many mountains (Mt Wellington, Ben Lomond, Cradle Mountain), but form an almost impenetrable blanket over much of the economically important Palaeozoic and Proterozoic rock formations, such as the coal measures in the Fingal Valley.

The dolerite intrusion heralded the breakup of the Gondwanaland megacontinent and the separation of Australia and Antarctica. In the Early Cretaceous (about 120 million years ago), fault-bounded troughs developed between mainland Australia and Tasmania. The troughs filled rapidly with sediments and trapped much of the abundant 'animal' life, forming the oil and gas deposits in Bass Strait.

In the Middle Cretaceous, high-level syenite dyke swarms intruded in the Cygnet area, carrying small amounts of gold.

16.1.7 Tertiary Period

(65 to 2 million years ago)

One of the last events in the geological evolution of Tasmania was the formation of elongate troughs, such as the Tamar Valley, which were filled with freshwater lake deposits of clay, sand and gravel.

Erosion of the older rocks during this period produced extensive deposits of alluvial tin and gold, particularly in north-east Tasmania.

Late in the Tertiary Period, another widespread episode of volcanic activity produced voluminous basalt lava flows that filled the troughs and old river valleys. The basalt also blankets much of the mineral prospective older rock formations, but has given rise to the rich pastures on the North-West Coast.

Late geological activities formed Tasmania as we find it now. Weathering and erosion have produced the present day landscape and uncovered many mineral deposits.

16.2 EXPLORATION

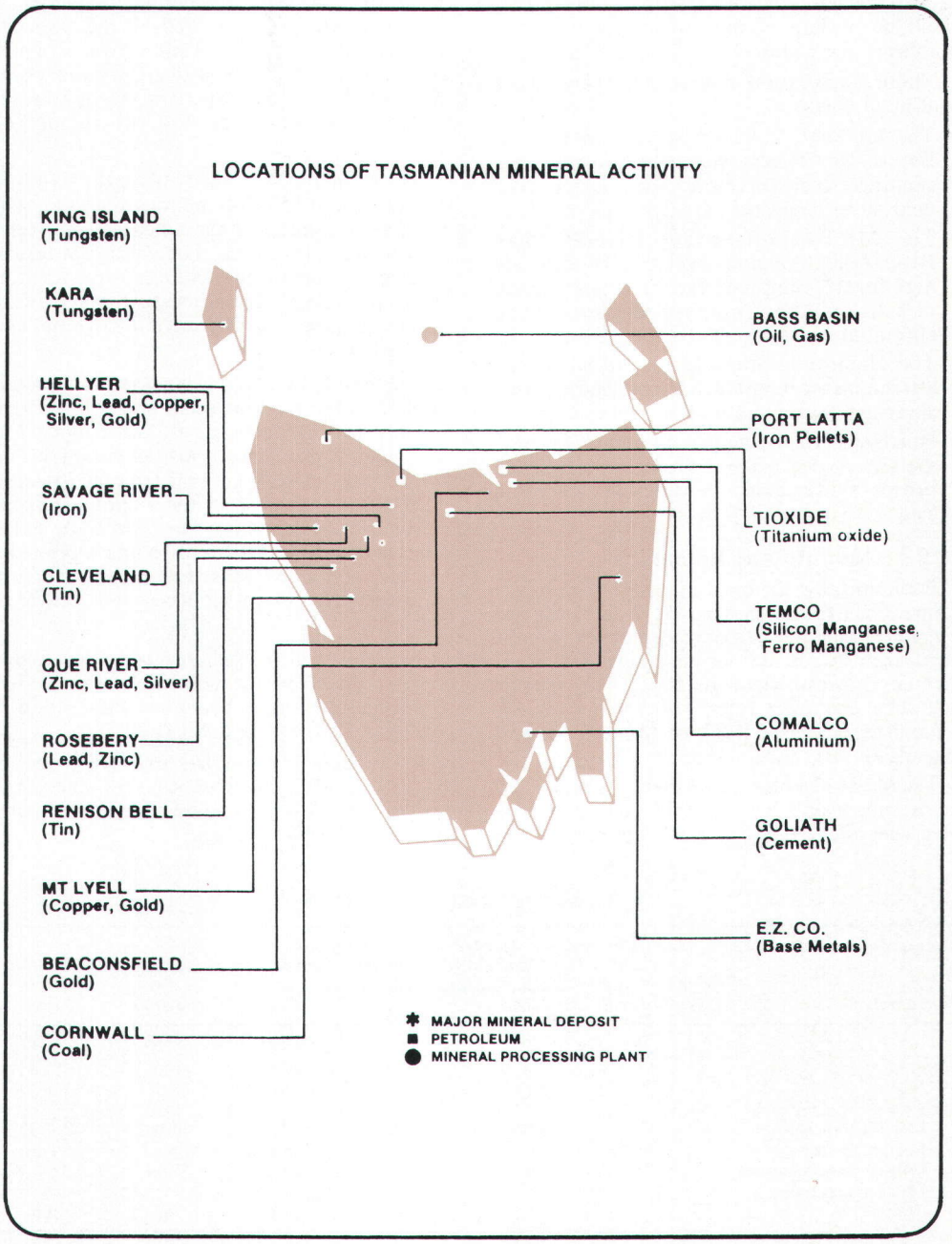
Mining involves a continuous depletion of a non-renewable resource. Therefore continued intensive mineral exploration and the discovery and development of new ore deposits are vital for the continuation of stable mining and minerals processing industries.

Early exploration was undertaken by generations of prospectors who roamed the rugged terrain in western and north-eastern Tasmania for over a century to discover the rich rewards of Mt Bischoff (tin), Savage River (iron), Zeehan (silver/lead/zinc), Mt Lyell (copper/gold/silver), Renison Bell (tin), Magnet (silver/lead/zinc), Rosebery (zinc/lead/, silver/copper), Hercules (zinc/lead/silver), Tullah (silver/lead/zinc) and Cleveland (tin/copper) in western Tasmania, and Storys Creek/Aberfoyle (tin/tungsten), Blue Tier (tin) and Briseis (tin) in eastern Tasmania.

More recently, modern techniques have been used by numerous mineral exploration companies, both large and small, to successfully locate additional ore bodies at Mt Lyell and the rich Que River zinc/lead/copper/silver/gold deposits at Que River (1973–74) and at Hellyer (1983).

Although the more mineralised regions of the State, such as the Queenstown-Zeehan-Rosebery area in western Tasmania, have been extensively explored on the surface, much of Tasmania remains relatively unexplored and the search for 'blind' mineral deposits is still in its infancy.

Mineral exploration today is aimed primarily at discovering 'blind' ore bodies that are concealed either by superficial overburden or overlying rocks that have not been removed by erosion.


LOCATIONS OF TASMANIAN MINERAL ACTIVITY
KING ISLAND
(Tungsten)
KARA
(Tungsten)
HELLYER
(Zinc, Lead, Copper,
Silver, Gold)
SAVAGE RIVER
(Iron)
CLEVELAND
(Tin)
QUE RIVER
(Zinc, Lead, Silver)
ROSEBERY
(Lead, Zinc)
RENISON BELL
(Tin)
MT LYELL
(Copper, Gold)
BEACONSFIELD
(Gold)
CORNWALL
(Coal)
BASS BASIN
(Oil, Gas)
PORT LATTA
(Iron Pellets)
TIOXIDE
(Titanium oxide)
TEMCO
(Silicon Manganese,
Ferro Manganese)
COMALCO
(Aluminium)
GOLIATH
(Cement)
E.Z. CO.
(Base Metals)
MAJOR MINERAL DEPOSIT
PETROLEUM
MINERAL PROCESSING PLANT

Modern mineral exploration programs demand a combination of many geological, geophysical and geochemical techniques and applications and may take five, ten or even fifteen years to come to fruition. Only a very small proportion of mineral exploration programs are successful.

Major exploration interests are centred on four main areas.

- The Mt Read Volcanics region from Elliott Bay to Que River, where the prospects are excitingly high for more zinc/lead/copper/gold/silver deposits.
- The Mt Bischoff-Savage River-Pieman River-Zeehan region, where prospects are high for tin, tungsten, lead, zinc, silver, gold, nickel, osmiridium, iron, copper, asbestos and chromium.
- The Hampshire-Sheffield region, where the attractions are tungsten, tin, zinc, lead, copper, silver, gold, iron and molybdenum.
- North-eastern Tasmania, bounded by Scamander-Avoca-Lefroy, which has long been prospected for gold, tin, tungsten, silver and lead.

16.2.1 Mount Read Volcanics

Economically, the most important geological formation in Tasmania is the Mt Read Volcanics. The 10–15 km-wide belt of volcanic rock extends north from Elliott Bay on the south-west coast through Queenstown to Que River. The volcanic belt then continues further to the north-east, around the northern flank of Mt Roland, and extends almost to Deloraine.

The Mt Read Volcanics formation is renowned for its numerous copper, lead, zinc, gold and silver deposits, some of which are among the largest of their type in the world. These deposits include the massive polymetallic ore bodies at Rosebery, Hercules and Que River, the recently discovered Hellyer deposit in the north of the belt, and the large disseminated copper ore bodies at Mt Lyell. In 1982–83 the associated mines produced over $150 million worth of metal concentrates, and it is easy to understand why the Mt Read Volcanics retains its status as one of the most prospective geological formations in Australia.

The ore deposits formed during the Cambrian Period, about 550–500 millions year ago, when volcanoes dominated the landscape in what is now western Tasmania. The volcanism resulted in extensive lava flows and explosive eruptions which produced volcanic ash that was carried by wind and water, and deposited in saltwater lakes or shallow seas.

During breaks in the volcanic activity, fractures formed in the volcanic rocks above hot magma chambers. Hot water, gases, and copper, lead, zinc, gold, silver and iron particles passed through these fractures to mix with the cold seawater. This mixing resulted in the sulphide minerals pyrite (FeS_2), chalcopyrite ($CuFeS_2$), galena (PbS) and sphalerite (FeZnS) being deposited on the bed of shallow seas. Examples include the Rosebery, Hercules, Que River and Hellyer ore bodies.

Not all volcanic fluids reached the sea floor, and in this case the sulphide minerals were deposited in veins or disseminations within the volcanic pile, such as at Mt Lyell.

Subsequent erosion has exposed some ore bodies (e.g. Mt Lyell, Rosebery) but others occur at considerable depths below the surface, such as the 'blind' Hellyer deposit.

16.1 Mining Operations, Tasmania

Operation	*Establishments in operation at end of year*	*Average annual employment (including working proprietors)*			*Wages and salaries*	*Turnover*
		Males	*Females*	*Persons*		
	No.	*No.*	*No.*	*No.*	*$'000*	*$'000*
1981–82	63	4 305	227	4 532	90 963	352 039
1982–83	55	3 648	189	3 837	85 531	388 390
1983–84 —						
Metallic minerals (*a*)	18	3 061	158	3 219	75 002	317 323
Coal	1	n.p.	n.p.	n.p.	n.p.	n.p.
Construction materials	24	141	11	152	2 210	18 518
Other non-metallic minerals	11	n.p.	n.p.	n.p.	n.p.	n.p.
Total	54	3 425	179	3 604	82 727	353 855

(*a*) Small tin producers with a sales value of under $20 000 have not been included.

16.2 Metallic Mineral Production, Tasmania

Mineral	*Unit*	*1979–80*	*1982–83*	*1983–84*
Copper concentrate	tonnes	64 791	68 446	90 755
Copper-tin concentrate	tonnes	2 239	1 955	1 618
Gold, other than from concentrate	kg	1	—	—
Iron ore pellets	tonnes	2 187 304	2 294 344	2 102 617
Iron oxide	tonnes	15 946	n.p.	n.p.
Lead concentrate	tonnes	18 629	36 737	34 309
Lead-copper concentrate	tonnes	24 185	24 969	20 835
Molybdenum concentrate	tonnes	66	79	24
Tin concentrate	tonnes	13 552	12 815	9 452
Tungsten concentrate —				
Scheelite concentrate	tonnes	3 629	2 110	1 646
Wolfram concentrate	tonnes	177	5	—
Zinc concentrate	tonnes	131 645	150 552	131 006
Value of Metallic Minerals Produced (a)				
Total metallic minerals	($'000)	303 643	299 443	235 407

(*a*) Selling value at the mine.

16.3 MINERAL PRODUCTION

Tasmanian mining, in common with other sectors of the economy, has experienced a downward trend in recent years as a result of a general world recession. The value of minerals produced from Tasmanian mines in 1983–84 was $275 million, a decrease of 19 per cent from 1982–83, and the lowest recorded since 1978–79. The industry's contribution to the State economy (value added) also declined by 19 per cent from 1982–83 to 1983–84 to a total of $167 million. The decrease was attributable mainly to increases in freight and cartage costs and the reduction in sales prices for some metallic minerals. Employment in the Tasmanian mining industry has continued to decline, with an overall fall of 20 per cent since 1981–82.

16.3.1 Metallic Minerals

Metallic mineral production in Tasmania has fluctuated over recent years but for 1983–84 the figures show a significant decline in the production of most minerals.

16.3.2 Fuel Minerals (Coal)

Coal is the only fuel mineral mined in Tasmania. There are known deposits of coal throughout much of Tasmania but the most important are those located in the Fingal Valley in the north-east.

16.3 Production of Coal, Tasmania

Year	*Production (tonnes)*	*Value (a) ($'000)*
1979–80	221 240	4 030
1982–83	320 349	12 713
1983–84	275 716	11 357

(*a*) Selling value at the mine.

16.3.3 Construction Materials

The production of construction materials is the section of the minerals industry which has the greatest personal impact on the people of the State. Buildings, roads and most services depend on the production of construction materials while control of costs depends on their being produced locally. The Goliath Portland Cement Company at Railton, not only supplies the domestic demand but exports through Devonport to the mainland.

16.3.4 Non-metallic (excluding fuel) Minerals

The quarrying of limestone is the earliest recorded activity in the field of non-metallic mineral mining in the State. Limestone production peaked at 822 779 tonnes in 1981–82 but has declined markedly in the last two years.

16.4 Production of Construction Materials (a), Tasmania (tonnes)

Mineral	*1982–83*	*1983–84*
Dimension stone	2 359	813
Crushed and broken stone	2 014 769	2 023 292
Gravel (*b*)	1 157 320	1 165 486
Sand	490 570	449 514
Other	61 667	48 425
Value of Construction Materials Produced (c) ($'000)		
Total construction materials	19 803	21 873

(*a*) Excludes quantities quarried by Government or semi-government authorities (e.g. HEC, Department of Main Roads, etc.) but includes quantities quarried by local government authorities for road material.
(*b*) Mainly decomposed rock for road material.
(*c*) Selling value at the mine.

16.5 Production of Non-metallic (excluding Fuel) Minerals, Tasmania (tonnes)

Mineral	*1982–83*	*1983–84*
Clays and shale —		
Brick	102 290	139 720
Other	62 248	62 730
Dolomite	17 755	22 334
Limestone (*a*)	791 346	606 971
Peat moss	890	620
Pebbles	n.p.	n.p.
Silica	38 191	41 919
Value of Non-metallic (excluding Fuel) Minerals Produced (b) ($'000)		
Total non-metallic minerals	6 580	6 596

(*a*) Excludes quantities used directly as a building or road material.
(*b*) Selling value at the mine.

16.4 MINERAL PROCESSING INDUSTRIES

Tasmania's ability to produce low-cost power from hydro-electric development has led to the establishment of metallurgical treatment plants to treat both local and imported ores. Major mining companies operating within the State include:

- *King Island Scheelite* mines and processes scheelite ore to the concentrate stage and produces artificial scheelite and molybdenum concentrates at its leaching plant.
- *Renison Goldfields Consolidated Limited (Mt Lyell)* produces copper in the form of concentrates from ore largely mined underground and hauled to the surface by a major diesel trucking operation.
- *Renison Goldfields Consolidated Limited (Renison)* is the largest tin mine in Australia and the world's largest producer of tin metal in concentrates from a hard rock underground mining operation.
- *Savage River Mines* produces high-grade iron ore pellets which are sold to Japanese steel mills.
- *Comalco Aluminium (Bell Bay) Ltd* is an aluminium smelter and refinery producing: rolling block, extrusion billet, foundry ingot, bus bar (horizontally cast), sows, T-ingot and granules. Comalco Aluminium Powder, an associated company, produces aluminium powder, aluminium paste and high alloy briquettes.
- *Electrolytic Zinc Company of A/Asia Ltd* produces zinc and zinc alloys as well as cadmium, sulphuric acid, superphosphate and aluminium sulphate at its Risdon factory. Silver-lead-zinc-copper-gold ore is mined at the company's mines at Rosebery.
  Note: See earlier editions of the *Tasmanian Year Book* which contain comprehensive descriptions and special articles of Tasmanian mining companies.

16.5 MINING 1985

1985 was a year of fluctuating fortunes for the Tasmanian mining industry. Depressed metal prices, financial problems and the need to remain competitive resulted in many retrenchments at a number of large companies throughout the State. However, exploration provided several valuable finds.

The year began with a program to retrench 100 workers from the Mt Lyell mine at Queenstown. However, the State Department of Mines optimistically predicted a new and vigorous stage of mineral exploration in Tasmania based on interest expressed by some of Australia's biggest exploration companies in the 800 square kilometres of land offered for exploration licence tenders in 1985.

In February the Commonwealth Government rejected a State Government request of $5 million needed to delay closure of the Mt Lyell copper mine, and prevent the immediate retrenchment of a further 100 workers. Instead the Hydro-Electric Commission bought Renison's Lake Margaret power scheme for $5 million thus providing finance to remain operational.

To present a higher public profile the mining industry created the Tasmanian Chamber of Mines. In part a result of the conservation movement, the new Chamber represented 26

organisations active in the discovery, development, servicing and processing of mineral resources and coal in the State.

Two historic pieces of mining equipment, a 6.5 kilometre aerial ropeway and a tram haulway, were shut down and partially dismantled at the E.Z. Company at Rosebery.

Opposition by the Kingborough Council to a proposed $34 million silicon plant at Electrona near Kingston began with the Council rezoning the Electrona area from general industrial to light industrial in an attempt to stop the project.

The discovery of Bass Strait oil due north of Burnie prompted Amoco to bring a second drilling rig into their exploration program.

An industrial dispute at Comalco was settled relatively quickly after the aluminium company began shutting down its furnaces, and threatened a total plant shutdown.

A NSW mining company planned a start to gold mining operations at Lefroy by the end of the year.

The Comalco aluminium smelter at Bell Bay began trimming its workforce with a view to slashing 130 jobs over 12 months.

The Electrolytic Zinc Company at Risdon commissioned a new granulation plant to improve the physical quality of superphosphate.

EZ Industries Ltd faced union resistance to proposed retrenchments brought about by a depressed market. Comalco joined EZ in slashing more jobs; 100 jobs in six months from Comalco and 300 from EZ were planned.

16.5.1 And the Future?

West Coast

Work has started on one of the biggest mineral discoveries in Tasmania this century.

The Hellyer ore deposit on the West Coast is being described as one of the world's richest ore deposits.

The Minister for Mines, Mr Roger Groom, officially launched work on the huge project when he detonated an explosive charge to start work on a $3 million tunnel to reach the deposit.

Zinc, lead, copper, gold and silver have been identified in the deposit, which lies in rugged country about 60 kilometres south of Burnie.

Aberfoyle, which is developing the site believes the mine will have a life of at least 20 years and will employ about 300 people.

In officially opening work on the mine Mr Groom said the ramifications in economic terms were quite enormous.

The venture would do much for direct employment and the spin-off benefits of mining activity also would act as a great stimulus to the general economy.

He noted that Aberfoyle believed the Hellyer deposit could be followed by further major discoveries in Tasmania.

The Hellyer venture is being jointly undertaken by Aberfoyle, which has a 90 per cent interest, and the Melbourne-based Paringa Mining and Exploration Company, which has a 10 per cent interest.

A number of government initiatives have been announced for the West Coast of Tasmania. $2 million has been allocated to the mining industry for sophisticated mineral exploration of the West Coast.

The Minister for Mines, Mr Roger Groom, said prospects were high that the mineral exploration on the West Coast would result in the discovery of new mines to take over from Mt Lyell after 1989.

Sophisticated mineral exploration techniques, using advanced aerial magnetic and geochemical methods, would be used to search the Mt Read volcanic region. These same techniques were used in the discovery of the Hellyer deposit.

'The program represents an acceleration of the work already being done by private companies ' said Mr Groom.

'This way we can get a new mine into operation more quickly and offer a replacement for Mt Lyell.'

Slate Mining

Due to the recent popularity of slate tiling for home decorating there has been a notable resurgence of slate mining in the State.

Tourist Mine

Plans are underway to turn the Mt Lyell mine at Queenstown into a tourist mine.

This unique attraction is expected to create about 30 new jobs, and will be the only such tourist attraction in Australia where underground mining operations can be viewed.

Tourists will be able to take a battery-powered train from Queenstown along a two-kilometre track to the smelter carpark for above-ground mining displays. A track will then take them underground along a three-kilometre tunnel, where a bus will complete the final journey further underground past working machinery.

The final concept for the museum would depend on engineering studies that have to be undertaken.

16.6 REFERENCES

ABS Publications Produced by the Canberra office:

Census of Mining Establishments: Summary of Operations by Industry Class, Australia, Preliminary, (8401.0), annual.

Census of Mining Establishments: Details of Operations by Industry Class, Australia (8402.0), annual.

Australian Mineral Industry Quarterly (8403.0), quarterly.

Mineral Production, Australia (8405.0), annual.

Mineral Exploration, Australia (8407.0), annual.

Mineral Exploration, Australia (8412.0), quarterly.

ABS Publications Produced by the Tasmanian office:

Mining, Tasmania (8401.6), annual

Tasmanian Year Book (1301.6), annual. 1967, 1969, 1976–1981, 1984 and 1985 editions.

Other Publications:

Annual Report, Director of Mines, Government Printer, Hobart.

The Mines and Mineral Resources of Tasmania, Department of Mines, Tasmania, Government Printer, Hobart.

Chapter 17

FORESTRY

		Page No.
17.1	**Forests, Timbers and Plantations**	253
17.1.1	Forests	253
17.1.2	Timbers	253
17.1.3	Plantations	255
17.2	**Ownership and Control**	255
17.2.1	Timber Concession and Reserve Areas	256
17.3	**Forest Utilisation**	256
17.3.1	Woodpulp and Paper	256
17.3.2	Woodchips	256
17.3.3	Timber	257
17.3.4	Energy	258
17.4	**Timber Using Industries**	258
17.4.1	Paper and Particle Board	258
17.4.2	Newsprint	258
17.4.3	Woodchips	259
17.5	**Forest Management and Research**	259
17.5.1	The State Forestry Commission	259
17.5.2	CSIRO Forest Research	260
17.6	**References**	260

Chapter 17

FORESTRY

Tasmania is unique amongst Australian States in its concentration of forest resources. No other State has similar widespread conditions conducive to forest growth: a cool temperate climate and a reliable rainfall varying locally from 500 to 3 800 millimetres with relatively small seasonal variation. Although land clearing, timber exploitation and fires have left their mark, the Forestry Commission estimates that the current total forest area (including some forest of little or no commercial value) is 2 988 400 hectares or about 44 per cent of the State's total area.

17.1 FORESTS, TIMBERS AND PLANTATIONS

17.1.1 Forests

Three main vegetation types, dry sclerophyll, wet sclerophyll and mixed forest form the productive, commercially harvested native forest estate.

Dry sclerophyll forests occur where rainfall is between 500 and 1200 mm per year. One or two eucalypt species usually dominate the canopy; for example gum top stringybark or white top stringybark (*Eucalyptus delegatensis*), and white gum (*E.viminalis*) with an understory of small trees and shrubs. This forest type is commercially important in the central north and east coast regions.

Wet sclerophyll forests occur where rainfall is 1000 to 1300 mm per year, in the north east, north west and south of the State. The main canopy species include gum top stringybark, brown top stringybark (*E.obliqua*) and stringy gum or swamp gum (*E.regnans*), with a dense understory of small trees, shrubs and ferns.

Mixed forests consist of a tall eucalypt canopy with an understory of rainforest species including myrtle, sassafras, leatherwood and celery top pine. These forests occur where rainfall is more than 1200 mm per year, concentrated in wetter, more fertile areas in the west and south, with scattered pockets in the north east.

In areas of high rainfall, of about 1500 mm or more, with relatively low fire frequency, and suitable soils, temperate rainforests are found. These are characterised by the dominance of myrtle (*Nothofagus cunninghamii*), sassafras (*Atherosperma moschatum*) and leatherwood (*Eucryphia lucida*). No timber harvesting operations occur in stands of pure rainforest. Blackwood (*Acacia melanoxylon*) grows where rainforest has been disturbed in the past, principally by fires, in the north-west around Smithton.

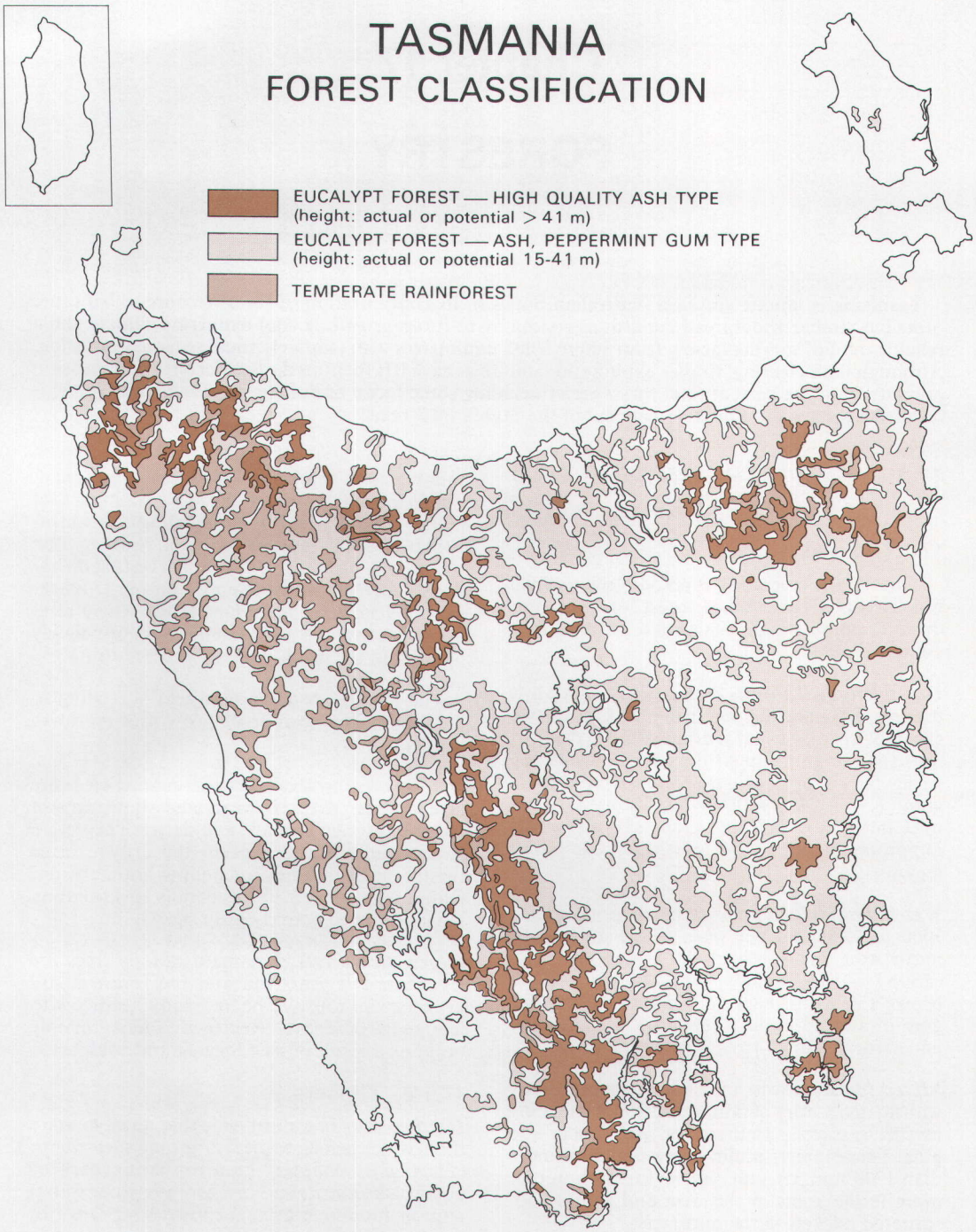
The forests are often classified according to their ages. They can be oldgrowth or regrowth forests.

Oldgrowth Forests: The main canopy trees are usually older than 110 years and show signs of old age through damage and decay. They often have hollow butts, gaps in the crown, large twisted or dead limbs, or hollow branch stubs. Oldgrowth forests are generally overmature, having stopped actively growing.

Regrowth Forests: The main canopy trees are less than 110 years old and the forest is still growing vigorously. The trees look healthy with few signs of decay. Regrowth forests mainly occur as a result of past logging and wildfires.

17.1.2 Timbers

Hardwoods: The most valuable eucalypts are those which belong to the 'ash' group, stringybark (*Eucalyptus obliqua*), gum top stringybark or alpine ash (*Eucalyptus delegatensis*) and swamp gum or mountain ash (*Eucalyptus regnans*). In the south and south-east Tasmanian blue gum (*Eucalyptus globulus*) occurs in high quality forests. In areas where the annual rainfall is


TASMANIA
FOREST CLASSIFICATION
EUCALYPT FOREST — HIGH QUALITY ASH TYPE
(height: actual or potential > 41 m)
EUCALYPT FOREST — ASH, PEPPERMINT GUM TYPE
(height: actual or potential 15-41 m)
TEMPERATE RAINFOREST

below 760 mm the more important eucalypts are black peppermint (*Eucalyptus amygdalina*), swamp or black gum (*Eucalyptus orata*), white gum (*Eucalyptus viminalis*), stringybark (*Eucalyptus obliqua*) and white peppermint (*Eucalyptus linearis*).

Tasmania has 11 tree types that are suitable for use as pulpwood, of which ten are eucalypts. The other is myrtle, a rainforest hardwood available in the north-west of the island. The eucalypts are graded by quality:

- First quality ('ashes'); stringybark, gum top stringybark, swamp gum and ironbark.
- Second quality ('gums'); white gum, blue gum and swamp or black gum.
- Third quality ('peppermints'); black peppermint, white peppermint and silver peppermint.

The gum top stringybark and stringybark account for over 60 per cent of all eucalypt logs cut for woodchipping.

Softwoods: Although Tasmania's native forests produce some very valuable softwood timber, these are very slow growing and in short supply. They include King Billy pine, Huon pine and celery top pine. For this and other reasons, attention has been given to building up another section of the total forest estate — plantations of exotic species, particularly *Pinus radiata*.

17.1.3 Plantations

Fast-grown softwood plantations have been established in State forest initially to fill an expected sawlog scarcity. In addition, these softwood plantations yield a long-fibred pulp which is a requirement of paper production. Softwood plantations cover less than 2.4 per cent of State forest area and radiata pine (*Pinus radiata*) is the principal species planted. An increasing area of native hardwood plantations has been established in recent years.

There have been two stages in the establishment of the State's softwood plantations. The first involved planting on derelict farmland which had reverted to scrub and bracken following early agricultural practices. Undertaken during the period between 1935 and 1960, its goal was to produce sawlogs in the shortest possible time to bridge an anticipated shortfall in hardwood sawlog availability in the 1980s and 1990s.

The second stage began in 1961. The continuing demand for long-fibre conifer pulpwood, to serve an expanding pulp and paper industry, saw the extension of planting into areas of low quality native forest. Radiata pine plantations now provide a large part of Australian-grown wood supplies. Large scale establishment of these plantations was commenced by State Governments early this century. In the 11 year



Logging operations in a pine plantation

period covered by the *Federal Softwood Forestry Agreement Acts* 1967, 1972 and 1976, the Commonwealth provided financial assistance to the State for an extended program of softwood plantation development. An extension to the Act in 1978 provided funds for maintenance of the plantations already established for another five years.

In 1985 Tasmanian State forest plantations comprised 36 991 hectares of softwoods and 2 484 hectares of hardwoods. Most softwood plantations are in the Fingal, Scottsdale, Devonport and Burnie districts, while hardwoods are distributed more widely.

17.2 OWNERSHIP AND CONTROL

Of the total forest area of 2 988 400 hectares, 40 per cent is in State Forest, 23 per cent is privately owned, 22 per cent is Crown Land and 13 per cent is in Crown reserves. The need for permanent reservation of land for timber production was first given statutory recognition with the *Waste Lands Act* 1881. A program of acquisition of land suitable for dedication as State forest has seen the gazetted area reach 1 555 890 hectares at 30 June, 1985.

17.1 Tenure of Forest Area ('000 ha)

Tenure	*High quality eucalypt*	*Low quality eucalypt*	*Rain forest*	*Plantations*
State forest	357.7	637.8	168.1	43.2
Forest reserves	3.7	6.9	1.2	—
Crown land	78.3	365.0	199.5	—
Crown reserves	26.8	248.5	100.4	—
HEC	8.8	47.0	4.2	—
Private property	26.3	617.2	25.3	22.5
Total	501.6	1 922.4	498.7	65.7

State forests: Tenure by the Forestry Commission under the *Forestry Act*, 1920.

Forest reserves: Areas provided for recreational, scientific, environmental and aesthetic purposes established within State forests.

Crown land: Unallocated land with tenure by the Lands Department; wood production and sale controlled by the Forestry Commission.

Crown reserves: Principally National Parks and State Reserves administered under the *National Parks and Wildlife Act* 1970.

HEC: Land vested in the Hydro-Electric Commission.

17.2.1 Timber Concession and Reserve Areas

The establishment in Tasmania of various industries using forest resources has given rise to the need for some guarantee of assured timber supplies to those industries. Therefore, certain concessions and cutting rights on Crown lands have been awarded to companies relying on forest products as their raw matrials. Cutting rights apply only to Crown land and State forest within the concession boundaries. Concession areas are those areas where a company is at present allowed to operate while reserve areas are set aside for future use. Providing that the company meets certain stipulated conditions, permission to remove timber from the reserve area may be granted by the Forestry Commission.

17.3 FOREST UTILISATION

While sawmilling of native forest timbers had become a major part of Tasmanian industry by the mid nineteenth century, in recent years pulpwood for the manufacture of papers, and woodchips for export have become equally important forest based industries in terms of the volume of timber processed.

Establishment of the woodchip export industry and the expansion of other timber-using industries has resulted in greatly increased annual timber requirements necessitating careful utilisation of existing forest resources and the development of viable reforestation schemes. Integrated forest operations seek to maximise use of the forest resource by allocating the best logs as sawlogs, a lower grade as optional sawlogs and the remaining merchantable logs as pulpwood or woodchip timber. This strategy facilitates regeneration of the forest as most of the standing trees are removed through clear-felling, decreasing competition for existing nutrients and light.

17.3.1 Woodpulp and Paper

The manufacture in Tasmania of fine writing and printing papers commenced at Burnie in 1938 following technological developments allowing hardwood fibre to be used as a prime resource. In 1941 the first newsprint mill in Australia was established at Boyer on the Derwent. A further pulp and paper mill commenced operation at Wesley Vale near Devonport in 1970 producing magazine and directory grade papers. During the past fifteen years pulpwood produced for local processing into paper has shown only a gradual increase, in contrast to the doubling of the quantity of woodchips produced. Whereas in 1972–73 woodchips and pulp locally processed was 36.2 per cent of total production, in 1984–85 it had fallen to 24.7 per cent.

17.2 Chipped, Ground and Flaked Wood Locally Processed

Year	*Tonnes (green weight)*
1972–73	793 700
1974–75	785 600
1976–77	832 000
1978–79	781 200
1980–81	1 073 600
1982–83	875 000
1984–85	900 300

17.3.2 Woodchips

Tasmanian forests have been supplying woodchips for export under licence (mainly to Japan) since 1971. In 1972–73, 1.4 million tonnes of chips were exported. By 1984–85 it was being reported that 20 000 hectares of native forest were being clear-felled annually to export about 2.7 million tonnes of woodchips.

17.3 Woodchips Exported, Tasmania

Year	*Tonnes (green weight)*
1972–73	1 397 200
1974–75	2 161 300
1976–77	2 041 100
1978–79	2 196 600
1980–81	2 354 100
1982–83	2 293 300
1984–85	2 750 400

Three companies currently hold export licences, APPM, its subsidiary Tasmanian Pulp and Forest Holdings and Forest Resources, and each were due for review by 1988.

Before renewing woodchip export licences, the Commonwealth Government required licence applicants to prepare an environmental impact statement.

This major document, the Environmental Impact Statement on Tasmanian Woodchip Exports beyond 1988, was commenced in early 1984 and was completed in June 1985 by the EIS Study Group that consisted of representatives from APPM, Forest Resources and the Forestry Commission. After a two month period of public review the final report was prepared in the form of a Supplement to the draft document. The Commonwealth Minister for Primary Industry made the final decision on the licence renewals and their conditions in December 1985 following an intensive lobbying campaign by the woodchip companies, and their critics in the conservation movement.

The Commonwealth Government granted 15 year licences to the woodchip export companies from 1988. The licence renewals have been granted with conditions that strict environmental standards must be followed and that yearly reports be prepared on activities and compliance with export licence conditions.

17.4 Material Used in Chipping, Grinding and Flaking of Wood ('000)

Year	*Logs*	*Sawmill offcuts*
1972–73	2 133.7	224.1
1974–75	2 866.3	246.4
1976–77	2 913.2	248.2
1978–79	2 935.2	263.5
1980–81	3 369.8	308.8
1982–83	3 182.0	212.3
1984–85	3 594.7	266.7

17.3.3 Timber

Sawmilling is Tasmania's oldest industry. Shortly after the colony was established in 1803, Government sawpits were in operation in Hobart. The first water powered sawmill was constructed in 1824 and by 1838 the colony was exporting around 900 m^3 (roughly 300 000 super feet) of timber annually. The first steam powered mill was established in 1844 and 22 mills were in operation by 1859.

Expansion in the industry was slow until the 1890s when amendments to the *Crown Lands Act* sparked a rapid expansion, which continued until the mid 1920s. The depression seriously affected both employment and production, with output in 1931–32 falling to 32 per cent of what it had been in 1923–24.

From the mid 1930s to the 1970s the industry continued to expand, until 1974–75, the total log usage for sawing, peeling and slicing had reached over 1 million cubic metres. This was seen as too high. To prevent the possible eventual collapse of the industry the Forestry Commission introduced reductions in the volume of sawlogs that millers could obtain from Crown forests. The first reduction of 20 per cent took place in 1977.

The reduced volume of hardwood milled was offset to some extent by a trebling in usage of

The Woodchip Export Debate

The renewal of woodchip export licences negotiated during 1985 saw a spirited debate between advocates of the industry as it has developed over the past 15 years and its critics. A substantial Environmental Impact Statement was prepared on behalf of a consortium of woodchip exporting companies and the State Forestry Commission. Public comment was invited by the Commonwealth Government, which has constitutional power to regulate international exports.

Issues canvassed in favour of the woodchip industry primarily concerned the economic value, both in terms of export earnings and in benefits dispersed widely through rural employment and payments to landowners. The loss of 5 000 jobs and $120 million in export revenue to Tasmania was predicted in the event of export licences not being renewed. The regenerative function of integrated forest harvesting was also seen as beneficial in improving the growing stock of forest, compared to previously harvested areas which had not been efficiently regenerated after timber-getting, burning or land clearing. It was also argued that better access to sawlogs would also be facilitated by integrated logging.

Opponents of the woodchip licence renewal canvassed issues concerned with economic and environmental impact effects of the industry and, more broadly, the desirability of the scale of harvesting at recent levels. Economic concerns included imputed subsidies to the industry, especially in terms of transport facilities and the costs of effective regeneration; the relationship of woodchipping to other segments of the forest based industries; and the loss of opportunity for further local industry, either in processing of woodchips into pulp or paper products or less directly through competition with the tourism and related industries. Concern was also expressed about the future competitiveness of domestic pulpwood production in view of very significant pulpwood productivity increases attained overseas. Environmental objections to the industry included inadequacy of detailed knowledge of threatened habitats and of some specific forest types and areas. The industry was also seen as potentially detrimental to the State's renowned scenic attractiveness.

17.5 Logs Used in Sawmilling and Plywood ('000 m³)

Year	*Hardwood*	*Softwood*
1972–73	1 068.7	28.3
1974–75	1 023.1	48.2
1976–77	894.8	91.7
1978–79	789.0	73.8
1980–81	807.1	185.1
1982–83	503.2	167.9
1984–85	631.4	212.9

plantation softwood logs. As well, since 1980 the volume of eucalypt used has fallen while that of blackwood, myrtle and sassafras from rain forests has increased.

17.3.4 The Forest as an Energy Source

Forests are becoming an increasingly important energy source in Tasmania. An Australian Bureau of Statistics survey in June 1985 revealed that an estimated 78 500 Tasmanian households (52 per cent of all homes) used solid fuel as their principal means of home heating. This was 19 000 more households using fuel than in 1983 when approximately 31 000 m³ of fuel wood was sold from Crown land and more than half a million cubic metres from private land.

Apart from this traditional use of forests as an energy source for home heating, steadily rising energy costs have led to many investigations into the possible use of forest residues to provide energy for industrial applications. A number of manufacturing companies have installed wood/coal burners to replace oil fired furnaces for steam generation, and investigations into the potential of wood gasification as an oil substitute are now underway.

17.4 TIMBER USING INDUSTRIES

17.4.1 Paper and Particle Board

Associated Pulp and Paper Mills, a division of North Broken Hill Ltd. manufactures paper at Burnie and particle board and paper at Wesley Vale. The Company owns 128 000 hectares of forested land and holds cutting rights over Crown land for 24 kilometres on each side of the Emu Bay railway line from the north coast to the Pieman River.

In 1970 the Company completed the first stage of its pulp and paper mill at Wesley Vale. The first paper machine installed has an annual capacity of 41 000 tonnes of magazine paper and provision has been made for the installation of three additional machines. However, expansion at Wesley Vale has been deferred due to economic conditions and the difficulty of financing the very high capital cost of the project at present. An alternative expansion project at the Burnie mill to produce bleached, softwood pulp from Company and Forestry Commission softwood plantations has been completed and in 1983 a $35 million boiler project was completed. A coating machine also operates at Wesley Vale with clay mined from the Company's clay mine at Tongannah.

17.4.2 Newsprint

Australian Newsprint Mills Limited at Boyer is one of two mills producing newsprint in Australia. Boyer is 35 kilometres from Hobart on the Derwent River.

The Boyer mill's main timber supply is drawn from the Company's forest concession which is in the upper Derwent Valley, west of the Derwent River, and extending from the Snowy Range in the south, north to Lake King William. The *Florentine Valley Paper Industry Act*, as amended, provides for a concession of 160 000 hectares, from which wood is harvested for use in the manufacture of newsprint, chemical pulpwood and in sawmill and veneer mills. The Company is responsible for all forest management activities and maintains high environmental standards in the Concession.

The Boyer mill and associated forestry activities employ over 1 500 people and transports products throughout Tasmania and the mainland. Newsprint production from the three paper

17.6 Logs Used and Timber Produced

Year	*Logs Used*					*Timber Produced*				
	Hardwoods		*Softwoods*		*Total*	*Hardwoods*		*Softwoods*		*Total*
	Eucalypts	*Rain forest*	*Plan-tation*	*Natives*		*Eucalypts*	*Rain forest*	*Plan-tation*	*Natives*	
1978–79	775.2	13.8	65.3	8.5	862.8	285.1	4.2	28.3	3.0	320.6
1979–80	768.0	12.9	150.5	10.9	942.3	283.3	4.4	63.9	3.6	355.2
1980–81	780.7	26.4	178.9	6.2	992.2	289.4	8.9	73.2	2.4	373.9
1981–82	655.6	28.5	169.0	9.6	862.6	246.4	9.1	68.3	3.4	327.2
1982–83	475.6	27.6	161.2	6.7	671.1	175.0	8.1	62.6	2.3	248.1
1983–84	585.3	20.2	167.7	5.3	778.5	219.4	6.1	62.8	1.9	290.1
1984–85	611.9	19.4	207.0	5.8	844.2	227.7	5.7	79.1	2.0	314.5

machines at Boyer was 216 000 tonnes in 1984–85. In 1978 machinery was installed to develop the manufacture of a special type of thermo-mechanical pulp from radiata pine which partly replaces costly imported Kraft chemical pulp. This pioneering project now draws pulpwood from Forestry Commission pine plantations at Scottsdale and from the Company's own plantations near Boyer.

Continuing research and development at Boyer has led to new types of paper being produced including telephone directory paper; coloured, lightweight and high-brightness paper for special uses; and bulky paper for the publishing industry.

ANM also has a half interest in a veneer mill commissioned at Boyer in 1984 for the production of sliced eucalypt veneer from high grade logs from its concession.

17.4.3 Woodchips

The plant of Tasmanian Pulp and Forest Holdings (a subsidiary of North Broken Hill Ltd) at Spring Bay, near Triabunna on the east coast, has an annual capacity of more than 813 000 tonnes of woodchips. Timber for the project comes from pulpwood concession areas extending along the Eastern Tiers over some 220 kilometres from Murdunna in the south to Eddystone Point in the north. The Company has also been granted concessions over reserve areas covering much of central Tasmania. These areas will ultimately be used provided Tasmanian Pulp and Forest Holdings Ltd meets various stipulations contained in the *Pulpwood Products Industry (Eastern and Central Tasmania) Act* 1968. In addition, the Company is permitted to obtain pulpwood from areas in the reserve set aside by the Forestry Commission for silvicultural purposes or by utilising trees removed to open the forest for economic extraction of milling-quality timber.

The Company's first woodchips were exported from the Spring Bay complex in April 1971. Over the last five years the production rate has been maintained at around 700 000 tonnes per year.

Associated Pulp and Paper Mills Ltd. and Forest Resources constructed their woodchip plants at Long Reach, near Bell Bay, on the Tamar River. APPM draws its timber supplies from Crown forest concessions, private land and sawmill waste. As well, Forest Resources currently removes pulpwood from areas of Crown forest in the north-west of the State. Annual capacity of the APPM plant is 1 065 000 tonnes of woodchips; Forest Resources 15-year export contract is for an annual 947 000 tonnes of woodchips. Both companies commenced production of woodchips in 1972; APPM at its Long Reach plant in May 1972 and Forest Resources from its portable and satellite chipping plants in mid-1972. In February 1973 the first log trains commenced using the rail extension to Long Reach giving the two companies economic access to more distant timber supplies.

17.5 FOREST MANAGEMENT AND RESEARCH

The Forestry Commission is directly responsible for the management of Tasmania's State forests. The Australian Forestry Council, formed by the Australian and State Governments, co-ordinates national programs for the production, utilisation and conservation of Australian forests. Research into a range of resource and technological aspects of the forest-based industries is undertaken by the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

17.5.1 The State Forestry Commission

The major goal of forest policy is to achieve sustained production of sawlog and pulpwood as a basis for stable forest based industry.

The major goal for the native hardwood forests has been to achieve sustainable production of sawlogs and pulpwood as the basis of a stable forest sector economy. The means to achieve this goal include:

- Dedication of suitable areas as State forest, and rationalisation of State forest boundaries.
- Sound knowledge of the forests and careful planning. The Commission's Planning and Resources Branch collects information on the forests, their distribution, timber volumes and quality, age, species, growth rate and visual quality. This information is used to prepare management plans.

  Planning is the corner stone of the concept of forest production in perpetuity, or sustainable yield, as it involves the calculation of the timber volumes available for harvesting each year against the growth potential of the forests.
- Constructing roads into forest areas that provide access for timber harvesting, research, fire protection and public recreation.
- Regenerating logged areas. In wetter forests clearfelled for sawlogs and pulpwood, the usual practice is to burn logging debris then aerially sow with eucalypt seed of the species formerly on the site. However, in drier forests where areas have been selectively logged, soil disturbance by logging machines is often sufficient to stimulate regeneration.

  In 1984–85, 4 048 ha were aerially seeded for regeneration. This figure is lower than usual as some areas were not completed in the season and will be regenerated the following year.
- Protecting the forests from harmful pests and diseases through research and monitoring,

and from wildfires through a system of early detection and swift suppression.

Plantations of softwoods and hardwoods are an intensive, high capital form of forest management that aims to produce volumes of timber quickly. As in native forests establishment and management of plantations needs careful planning, roading, protection and harvesting.

The Forestry Commission's responsibility for State forests was widened by the *Forestry Act* 1977, which empowered the Commission to promote the development and proper management of private forests. The Act provided for a Private Forestry Council to advise the Forestry Commission on private forestry and a Private Forestry Division to provide advice and assistance to forest owners and potential forest owners. Both these organisations were officially established in September 1978. The private forest estate is a major part of the State's forest resource.

17.7 Activities of the Forestry Commission, Tasmania: Summary

Particulars	*1979–80*	*1983–84*	*1984–85*
Area prepared for regen. burning (ha)	7 105	6 502	4 048
Seedlings produced ('000)	3 336	3 530	3 912
Plantations — established during year (ha)	1 527	1 421	1 688
Firebreaks — constructed (km)	110	78	107
Roads — constructed (km)	130	112	115
— improved (km)	80	10	117

17.8 Forestry Commission Revenue and Expenditure, 1984–85 ($00)

Revenue —	
Royalties	12 989
Road charges	2 373
Other	192
Total	15 554
Expenditure	
Public Forestry —	
Forestry Fund	13 012
State Loan Funds	26 263
Grants	292
Private Forestry Division —	
Consolidated Revenue	717
Loan Fund	13
Total	40 297

Source: Forestry Commission

The Commission also has a responsibility for controlling forest fires on or near State forests. In the 1984–85 season, the Commission fought 71 fires that burnt over 2 000 hectares.

17.5.2 CSIRO Forest Research

In Tasmania the CSIRO Division of Forest Research is engaged in three main projects; the mathematical modelling of forests and of tree growth, the genetic resources and physiology of commercial species, and forest diseases.

Mathematical models aim at improving knowledge of competition between trees and of yields obtainable from high quality eucalypt regrowth forest. Specific attention has been directed to the ecology of the gum-topped stringybark, an important production species, in its competition with rainforest species in the absence of fire, and problems associated with achieving efficient regeneration.

Genetic improvement of plantation conifers and eucalypts, both through seed improvement and vegetative propagation, is under investigation. More general genetic studies are of the reproductive biology and pollination mechanisms of native tree species. Growth rates and environmental factors affecting the functioning of plantation trees are also under detailed investigation.

Forest diseases, their carriers and the effect of disease on tree growth are being researched. Specific diseases include a premature needle-loss syndrome affecting exotic pines in Tasmania and dieback in several native forest species.

17.6 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Sawmilling, Woodchipping, etc. Statistics (8203.6), Quarterly.

Other Publications:

Forestry Commission Tasmania, *August Report*, Tasmanian Government Printer, Hobart.

Commonwealth Department of Primary Industry, *A Balance of Values, Background to the 1985 Commonwealth Decision on New Tasmanian Woodchip Licences*, Canberra, 1985.

Tasmanian Woodchip Export Study Group, *Environmental Impact Statement on the Tasmanian Woodchip Industry Beyond 1988*, Hobart 1985.

Chapter 18

MANUFACTURING

		Page No.
18.1	**Industries**	261
18.1.1	Manufacturing Companies	262
18.1.2	Size of Companies	265
18.1.3	Manufacturing and Geography	265
18.2	**Economic Contribution**	266
18.2.1	Historical Review	266
18.2.2	1983–84 Review	267
18.3	**References**	268

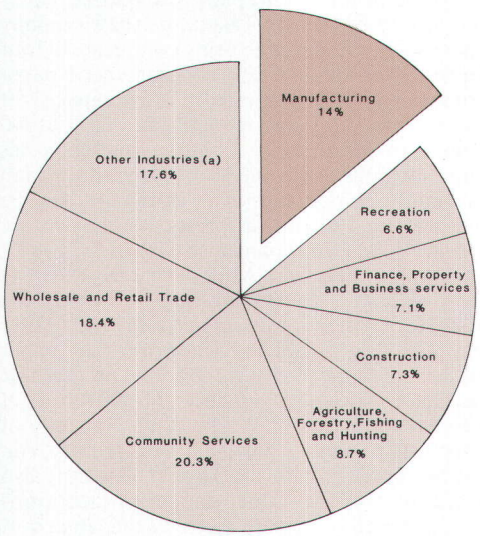
Chapter 18

MANUFACTURING

The manufacturing sector is the largest productive contributor to Tasmania's economy. Using 'value added' as the common measure of economic contribution, manufacturing provides more than twice the value produced by the mining and retail sectors and considerably more than the construction and agricultural sectors.

While not the largest employer, manufacturing provides jobs for almost 14 per cent of the State's employed workforce. With 24 800 employed at August 1985, of whom 20 000 were males, only the wholesale and retail trade and community service sectors employ more people.

Industry Employment, 1985



(*a*) Includes mining, transport and storage, communications, public administration and defence.

With approximately 2.8 per cent of Australia's population, the Tasmanian manufacturing sector employs 2.4 per cent of the total Australian manufacturing workforce.

18.1 INDUSTRIES

Six main industry groups make up the bulk of the sector in Tasmania: food and beverages; paper, paper products, printing and publishing; wood, wood products and furniture; basic metal products, textiles, clothing and footwear; and fabricated metal products. In the year ended 30 June 1984 these six groups provided approximately 85 per cent of the total manufacturing employment of 24 056 and 84 per cent of the total value added of $829 million.

18.1 Manufacturing, Tasmania, 1984

Industry	*Employment*	*Value added $'000*
Food and beverages	5 925	199 781
Paper, paper products	5 015	182 572
Wood, wood products and furniture	3 079	124 196
Basic metal products	3 325	n.p.
Textiles, clothing and footwear n.p.	n.p.	
Fabricated metal products	1 546	36 484
Chemical and petroleum and coal products	n.p.	n.p.
Transport equipment	894	25 754
Non-metallic products	814	39 290
Other machinery and equipment	661	16 438
Miscellaneous manufacturing	378	11 849
Total manufacturing	24 056	828 970

At June 1984 614 establishments out of the total 875 manufacturing establishments comprised these six main groups, some of which are described below.

While six industry groups provide most of the jobs and the economic contribution of manufacturing, three groups, food and beverages, wood, wood products and furniture, and fabricated metal products, account for almost 60 per cent of all manufacturing enterprises in the State.

18.1.1 Manufacturing Companies

Selected descriptions by the Tasmanian Development Authority.

Food and Beverages

Cadbury Schweppes Australia Ltd (Claremont): In 1921 an association of three British confectioners established their Australian plant at Claremont, near Hobart. Today, the plant is the largest cocoa and confectionery factory in Australia. The factory employs some 700 Tasmanians and specialises in moulded chocolate blocks, fancy boxed assortments, cocoa, drinking chocolate and the well known Flake and Turkish Delight bars. Some 30 million litres of fresh Tasmanian milk are used each year, most of which is collected and processed at a subsidiary dairy factory at Burnie. Large quantities of famous Cadbury Dairy Milk Chocolate are sent each year to the Company's sister factory in Victoria.

Cascade Group of Companies (Statewide): The Company is the oldest manufacturing company in Australia and is firmly established in the beverage industry at manufacturing, wholesale and retail levels. The Company manufactures alcoholic beverages through the only two breweries in the State: at Esk Breweries, Launceston (Boags Beer) and Cascade Brewery, Hobart (Cascade Beer). The Cascade Fruit Juices Division manufactures alcoholic cider under the brand names *Mercury* and *Van Diemen*, and also *Apple Isle* non-alcoholic cider, *Ultra-C* blackcurrant vitamin C syrup, soft drinks, pure fruit juices, fruit juice syrups, berry fruit pulps and concentrates for local and export distribution at Cascades, Hobart. The wholesaling of wine and spirits is the largest operation in the State with major outlets in Hobart, Launceston and Ulverstone. The Company owns 44 hotels spread throughout the State, the majority of which are leased to individuals.

Edgell-Birds Eye Division of Petersville Industries Ltd (Devonport, Ulverstone and Scottsdale): This company is Tasmania's leading processor of frozen and canned vegetables. The annual volume of raw materials required by the Devonport, Ulverstone and Scottsdale factories is approximately 207 000 tonnes, the main crops processed being potatoes, green peas, green beans and carrots.

McCain Foods (Aust) Pty Ltd (Smithton): McCain purchased the Smithton factory of General Jones in June 1984. The factory produces frozen vegetables, of which the main brands are Copper Kettle, Pict and McCain. Early in 1985 a new corn processing line was installed; a new box packaging line was also introduced.

United Milk Tasmania Ltd (Smithton, Edith Creek, Wynyard, Devonport, Legerwood): This is the State's largest manufacturer of dairy products and processes approximately 70 per cent of the milk produced in the State. Annual production has recently reached approximately the following levels: butter (salted and unsalted), 5 500 tonnes; cheese (cheddar), 9 000 tonnes; milk powders (skim, full cream and buttermilk), 8 000 tonnes; whey powder, 500 tonnes; casein (acid), 500 tonnes; whey proteins (35 per cent, 50 per cent and 75 per cent), 750 tonnes. The Company also produces milk concentrates and operates retail produce/hardware stores and a farm machinery business servicing rural areas.

Paper, Paper Products

Associated Pulp and Paper Mills (Burnie, Wesley Vale, Long Reach, Triabunna): This group of companies which is a wholly-owned subsidiary of North Broken Hill Holdings Ltd, is a major Australian integrated forest products complex and Australia's principal producer of fine printing and writing papers, magazine papers and coated papers. In Tasmania, the Company operates major manufacturing complexes at four centres: *Burnie* — where it commenced paper production in 1938; present annual capacity of the Burnie pulp and paper plant is 130 000 tonnes. In addition, the Company presently has three sawmills at Burnie and Wynyard through its wholly owned subsidiary company, Burnie Timber Pty Ltd, but at present, only two are operating. The Company also acquired, in 1979, Tasmanian Plywood Mills Pty Ltd which is based at Somerset. *Wesley Vale* — In 1970 the first stage of an integrated pulp and paper complex was completed when the first paper machine commenced production. The machine has an annual capacity of about 65 000 tonnes of paper. Production at Wesley Vale is mainly of magazine papers. A particle board factory, run by the subsidiary Burnie Timber Pty Ltd, also operates at Wesley Vale; annual production is about 15 million square metres *Long Reach* — APPM completed its woodchip plant and made its first export shipment in 1972. The Company has long-term contracts for the export of woodchips to Japan. *Triabunna* — In 1979 APPM took over Tasmanian Pulp and Forest Holdings Ltd which operates a woodchip export mill at Triabunna and also has long-term contracts with Japan.

Australian Newsprint Mills Ltd (Boyer): Since beginning operations in 1941, this Company has increased its annual production of newsprint from 27 400 tonnes to its present capacity of 220 000 tonnes in Tasmania. The Company also operates a newsprint mill at Albury in New South Wales with an output of 180 000 tonnes per annum. ANM is Australia's only producer of newsprint and currently supplies approximately 85 per cent of Australia's requirement. The Boyer plant is being constantly upgraded and its product range expanded beyond standard newsprint. This is requiring continuing capital expenditure to improve product quality and productivity. In the past 12 months, $2.5 million was spent on a cleaning system for one of the three paper machines on site and further expenditure is being planned. ANM is the largest company with its head office in Tasmania and indicates that there is an optimistic future for expansion of its operations in this State.

Basic Metal Products

Comalco Aluminium (Bell Bay) Ltd (George Town): Australia's first aluminium smelter commenced production in 1955 at Bell Bay, owned by the then Australian Aluminium Production Commission, a joint venture of the Commonwealth and Tasmanian Governments, with an annual capacity of 12 000 tonnes of metal. In 1961, the plant and facilities were acquired by the present company and the capacity increased in stages to 117 000 tonnes per annum, with a current employment of 1 270. Products made include rolling block, extrusion billet, foundry alloy ingot, T-bar alloy, primary metal as ingot, T-bar, and granules. As associated company, Comalco Aluminium Powder, produces aluminium powder, aluminium paste, and high alloy metal powder briquettes.

Electrolytic Zinc Company of A/Asia Ltd (Risdon and Rosebery): Established in 1916, the factory at Risdon is the largest producer of zinc in Australia and the second largest electrolytic-zinc plant in the world. It exports an extensive range of zinc and zinc alloys to over 30 countries. The Risdon plant has the capacity to produce more than 600 tonnes of zinc per day. Apart from the zinc and zinc alloys, the Company also produces cadmium, sulphuric acid, superphosphate, and aluminium sulphate. The zinc plant supplies a large proportion of Australia's total requirements.

Mine production capacity at the Company's West Coast mines at Rosebery is 650 000 tonnes of silver-lead-zinc-copper-gold ore per annum. The associated concentrating mill at Rosebery has capacity to treat 850 000 tonnes of ore per annum including treatment of ore from the Que River mine.

Tasmanian Electro-Metallurgical Co. Pty Ltd (Bell Bay): In 1962 BHP transferred its major alloy making from Newcastle to a green field site at Bell Bay. Expansion in 1976 gave export capacity and added ferro-silicon and manganese ore sinter to the existing product range of high carbon ferro-manganese and silico-manganese. Exports form a significant proportion of production and are being made for steelmakers and foundries in South East Asia, the Middle East, Japan, United States of America and New Zealand. Capacity is now about 150 000 tonnes per annum of ferro alloys and 250 000 tonnes per annum of manganese ore sinter. Due to a downturn in the world steel industry, operations during 1982 were reduced. Full plant operations resumed in January 1983. Approval has been given to upgrade facilities on site and this will mean that within three years manganese alloy capacity will increase by 33 per cent.

Tioxide Australia Pty Ltd (Burnie): This Company is a manufacturer of titanium pigments which are used as the base white pigment in paints, enamels, plastics, printing inks, rubber, paper, man-made fibres and a number of other products. At the present time, 10 different grades of pigment are made to meet the varying requirements of user industries. The Company was formed in 1937 as Australian Titan Products Pty Ltd. Plans for construction of the Heybridge plant were delayed by the Second World War and the factory was commissioned in December 1948. The initial annual output was 1 500 tonnes compared with a current capacity of 32 000 tonnes. The Company commenced a $6.5 million capital program of modernisation during 1982 in order to maintain its competitive position. Tioxide is the predominant supplier of titanium pigments to the Australian market and an increasingly significant supplier to SE Asian countries. A staff of approximately 365 was employed in mid-1984.

Textiles, Clothing and Footwear

Coats Patons (Aust.) Ltd (Launceston): This Company first produced yarns in Tasmania over 60 years ago. The factory produces knitting yarns, both wool and synthetic, and annual production is approximately 1.5 million kilograms.

Sheridan Textiles (Derwent Park): Formerly known as UTA Hobart, then Sheridan Domestic Textiles. It is part of the Clothing, Footwear and Textile Group of Dunlop Olympic Ltd. The Derwent Park mill commenced operations as Silk & Textile Printers Pty Ltd in 1948. Production now involves the preparation, dyeing and printing of mainly polyester/cotton percale bed sheeting along with some commission printing.

The mill also manufactures a full range of quality made-up domestic bed linen and shower curtains for Australian and export distribution.

National Textiles Ltd (Devonport): Previously Tootal Australia Pty Ltd, established 1952, manufacturers of woven man-made fibre fabrics in polyester/cotton and polyester/viscose blends for the workwear and fashion dress goods markets. Product rationalisation is currently taking place and the main production lines will be piece-dyed and yarn-dyed towels. The Company is also active in the commission dyeing area, processing fabric mainly constructed of synthetic yarns or blends. The Company manufactures in Devonport, and at Rutherford and Kotara in New South Wales. Australia-wide distribution is through its own selling offices located in all capital cities.

Fabricated Metal Products

Humes Ltd (Statewide): The Company operates three divisions in Tasmania: Humes Concrete, producing pre cast concrete; Humes Plastics, manufacturing UPVC and high density polythene pipes and fittings for a wide range of uses; and Humes—ARC, producing prefabricated reinforcement mesh and rod. Steel Mains Pty Ltd, a subsidiary company manufactures water, steam and oil lines up to six metres in diameter. This company also produces pressure vessels, spheres, bulk storage tanks etc. A field crew operates throughout the State installing all types of structural steel, pipelines and mechanical items. A subsidiary company, Tita Fittings Pty Ltd manufactures brass fittings used in connection of polyethylene pipes.

Repco Bearing Co. (Launceston): In 1949 this company was established to manufacture engine bearings for the Australian spare parts trade. The factory has since expanded and diversified its range of products and is now the only automotive bearing manufacturing company in Australia. The Company also undertakes the manufacture of sintered products using powder metallurgy techniques.

The Stanley Works Pty Ltd by Stanley Tools

If the law of averages is correct, one in every five Australians owns a Stanley screwdriver and each year those owners buy a new one. In fact, there would be very few Australian tradesmen or home handymen who would not have at least one product of The Stanley Works either in their tool kit or home. The brand names of Stanley, Titan and Turner have become synonymous with high quality hand tools.

Founded in the United States in 1843, The Stanley Works has grown into a world wide company with an international reputation for hand tools. In 1870 The Works was one of the first companies to develop the technique of cold rolling steel, the method now used in the manufacture of many of its industrial products.

In 1963 the Titan Manufacturing Company Pty Ltd became a jointly owned subsidiary of The Stanley Works, Hobart and the original parent company BHP. The name was changed to Stanley-Titan Pty Ltd.

Late in 1970 Stanley-Titan Pty Ltd acquired Turner Industries Ltd, a long established and well known tool and hardware manufacturer. Turner Industries manufactured tools such as screwdrivers and hacksaw blades and had the asset of an established export market. This was an advantage to Stanley-Titan as the company was able to concentrate on expansion programs rather than seeking export markets. When the merger was completed the name was changed to The Stanley Works Pty Ltd. The Stanley Works, in Australia, operates at two locations, Moonah in Tasmania and Nunawading in Victoria.

Tasmanian Operations

Initially BHP established a plant in Hobart in 1942 to make barbed wire and nails. After the end of World War II a new plant was opened to manufacture Australia's first line of edge-tools. New lines were continually added and in 1963 the production of trimming knives, tape rules, bailey planes, block planes, hand drills and bit braces was introduced.

The Moonah plant became the Company's major hand tool manufacturing plant while the Nunawading plant concentrated on hardware and certain tools. A product repair service also is maintained at Nunawading as some of the products, by their very nature, wear out and it is company policy to repair rather than replace. Because of the stringent quality control that is maintained throughout the manufacturing of all products, instances of faulty products are extremely rare.

Stanley Works became the first plant in Australia capable of making multi-coloured extruded plastic rod used for the coloured screwdriver handles. At least half of the cost of making a screwdriver is in the plastic for the handle.

The Moonah plant is one of only four factories in the world producing Scotch pattern auger bits, a highly skilled operation requiring high quality materials. Bright drawn steel from Rylands Bros Newcastle and black hot rolled rods from the Newcastle steelworks are used in the manufacture of the auger bits.

In order to be able to compete with its overseas rivals, Stanley Works is continually upgrading

its plant with the latest technological equipment. Recently a microprocessor was developed in conjunction with the Engineering Department of the Tasmanian University, to run the machine which prints the measuring tapes. An electronic eye system was developed and was expected to vastly reduce the losses from inaccurate measures.

The company is installing program logic controllers to automatically run two of its machines. It is also examining the feasibility of introducing a computer-aided design facility to its Hobart plant to design special-purpose products for its tool range. Program logic controllers use the same technology as a microcomputer but in a form specially designed for the manufacturing industry.

The company introduced its first program logic controllers four years ago and since then has been continually upgrading. One of the older program logic controllers installed for the past three years produces screwdriver handles.

Stanley Works manufactures 50 000 different product lines including tools and industrial products and is currently developing, in America, tools for use underwater and for the American space research program.

The company currently employs 168 staff including 13 apprentices at its Moonah plant.

Materials for use in the manufacture of Stanley products is mainly imported from Japan and the finished tools are exported to New Zealand, South-East Asia and South America.

Future developments are for the continued implementation of new technology to enable the Company to remain competitive in the market.



Drilling a sub-assembly for bit brace manufacture

Non-metallic Mineral Products

Goliath Portland Cement Co. Ltd (Railton): This company is a wholly owned subsidiary of Goliath Cement Holdings Limited and has been involved in cement production in Tasmania since 1928. With installation, in 1980, of new plant and equipment using the most modern technology currently available, cement production capacity was lifted to 750 000 tonnes per annum. Plans are complete to install an additional plant to lift this capacity to one million tonnes per annum. The company operates its own 4 000 tonne ship the *M.V. Goliath* to transport bulk cement to mainland markets. Goliath has also been exporting bagged palletised cement to Papua New Guinea and other Pacific Island destinations since 1970.

18.1.2 Size of Companies

Tasmania's manufacturing sector is dominated by small firms; only six per cent of the 875 establishments have a workforce of 100 or more employees. Contrarily, almost 80 per cent of the establishments have a workforce of less than 20. If small is beautiful, then the structure of Tasmania's manufacturing sector is probably ideal. Almost all industry groups comprise a majority of firms having a workforce of less than 50; the only exception is the textile group with 5 companies with more than 100 employees and 5 companies with a workforce of less than 50 employees.

18.2 Size of Manufacturing Establishments, Tasmania, 1984

Number of employees	*Establishments*	
	Number	*%*
Less than 4	319	36.5
4–9	244	27.9
10–19	129	14.7
20–49	94	10.7
50–99	37	4.2
100–199	30	3.4
200–499	15	1.7
500–999	3	0.3
1000 +	4	0.5
Total	875	100.0

18.1.3 Manufacturing and Geography

The decentralization of population that is a feature of Tasmania is reflected in the geography of the manufacturing sector in the State. Manufacturing establishments as well as employment provided is fairly evenly distributed throughout the State. So too is the economic value created by the sector, although on a per head basis, manufacturing is of least value in the south of the State.

18.3 Geography of Manufacturing, Tasmania (%)

Variable	*South*	*North*	*North-West*
Population	47.0	27.5	25.4
Establishments	38.1	36.5	25.4
Employment	38.8	33.8	27.3
Value added	31.3	39.8	28.8
Value added per head	$1 604	$2 158	$2 150

No individual industry group dominates a region; all are spread throughout the State, although the paper, paper products, printing and publishing group is less significant in the north than it is in the southern and north-western regions of the State. The manufacture of basic metal products on the other hand is, relatively, most significant in the north.

18.4 Main Industry Groups by Region

Region	*Industry groups*
	— by employment
South	Paper, paper products, printing and publishing Food and beverages
North	Basic metal products Food and beverages Wood, wood products and furniture
North-West	Paper, paper products, printing and publishing Food and beverages
	— by 'value added'
South	Food and beverages Paper, paper products, printing and publishing
North	Wood, wood products and furniture Basic metal products
North-West	Paper, paper products, printing and publishing Food and beverages

18.2 ECONOMIC CONTRIBUTION

18.2.1 Historical Review

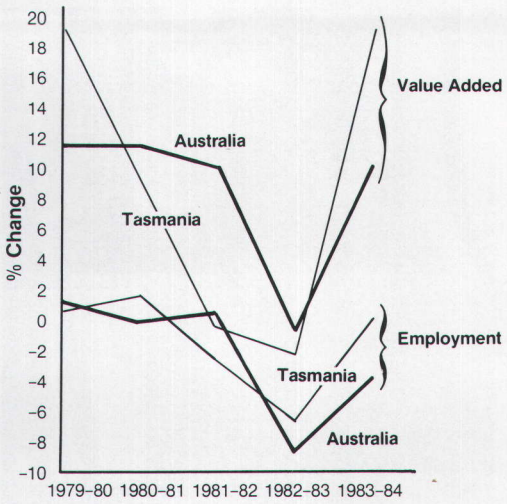
Although manufacturing has remained the largest contributing sector to the State's economy, its contribution has been slowly, but steadily, eroding. In 1975 there were a total of 628 manufacturing enterprises in Tasmania each employing at least four people; by 1984 there were 556. Over the same period the average annual employment has fallen from just under 29 000 to just over 24 000, a fall of 16.6 per cent. This pattern reflected the impact of international and national economic changes on Australia. The increase in oil prices in the two years to January 1974 was one of the factors that triggered off a world recession with inflation and unemployment reaching levels that had not been encountered for several decades.

Thus it is that the 'value added' by the manufacturing sector has been declining. In

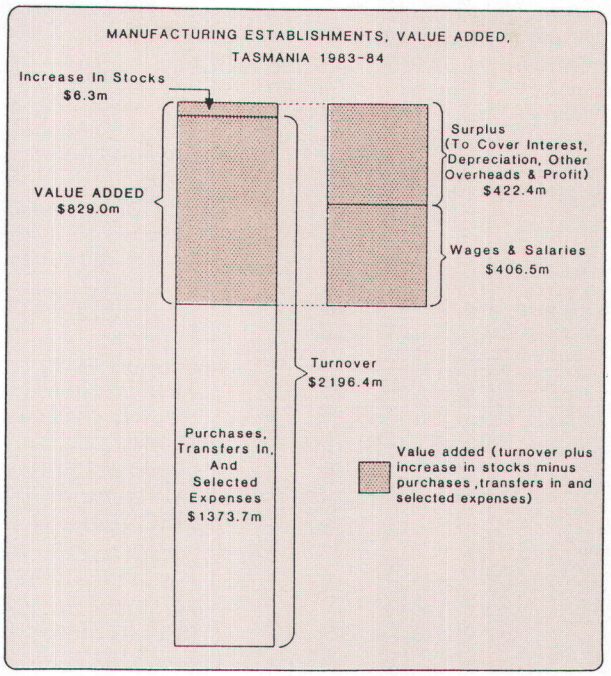
18.5 'Value Added' by Manufacturing, Tasmania ($'000)

Year	*Actual values*	*1974–75 values (a)*
1974–75	402 255	402 255
1976–77	533 288	428 201
1978–79	653 770	435 387
1980–81	713 445	369 579
1982–83	695 135	305 025
1983–84	828 970	342 372

(*a*) Actual values adjusted using the 'All Manufacturing Industry Index' see ABS Cat. No. 6412.0



Rate of change in employment and 'value added' in manufacturing, Australia and Tasmania, 1979–80 to 1983–84



1974–75 it was $402.3 million; in 1983–84 it was $828.9 million or only $342.4 million in 1974–75 values, but nevertheless an improvement on the previous two years. However, in this period manufacturing in Tasmania has performed better than Australia as a whole, and holds up well against all other States.

During the period since 1975, the 'value added' of all but four industry groups has increased more than the percentage increase of the total manufacturing sector; textiles, wood, wood products and furniture, chemical, petroleum and coal products and basic metal products. The big improvers have been clothing and footwear, food and beverages, paper and paper products, and in non-metallic mineral products.

18.6 Change in 'Value Added' by Industry Groups 1974–75 — 1983–84 Tasmania, (%)

Industry group	*change 1974–75 — 1983–84*
Food and beverages	161.5
Textiles	n.p.
Clothing and footwear	245.6
Wood, wood products and furniture	80.9
Paper, paper products and printing	157.3
Chemical, petroleum and coal products	n.p.
Non-metallic mineral products	136.7
Basic metal products	n.p.
Transport equipment	117.0
Other machinery and equipment	108.3
Miscellaneous	116.3
	346.0
Total	106.1

18.2.2 1983–84 Review

The year ended June 1984 appears to have brought a recovery from the down turn experienced in recent years but most pronounced in 1982–83. Value added increased by 19.3 per cent over the 1982–83 result while fixed capital expenditure less disposals rose by 29.1 per cent. These improvements in productivity and investment were supported by an increase of 11.6 per cent in turnover. Wages and salaries paid for the year was 5.2 per cent more than the previous year. However the sector has not provided more jobs; total average employment in 1983–84 for enterprises with 4 or more employees changed little from 1982–83.

18.7 Details of Manufacturing Operations, Tasmania, 1981–82 — 1983–84

Details	*Unit*	*1982–83*	*1983–84*
Establishments	no.	528	556
Average employment	no.	24 085	24 056
Wages and salaries	$m	387.7	406.5
Turnover	$m	1 968.5	2 196.3
'Value added'	$m	695.1	828.9

Almost all industry groups improved in 1983–84; only textiles and chemical, petroleum and coal products declined in 'value added', by 22 and 6.6 per cent respectively. The biggest improvers were the wood, wood products and furniture group, together with food and beverages and transport equipment. Both these latter two groups improved relative to other manufacturing industry groups.

18.8 Change in Employment and 'Value Added'

Industry group	*% change 1982–83 to 1983–84*	
	Employment	*'Value added'*
Food and beverages	0.3	22.5
Textiles	n.p.	n.p.
Clothing and footwear	8.1	11.3
Wood, wood products and furniture	4.3	44.3
Paper, paper products, printing and publishing	–0.8	11.2
Chemical, petroleum and coal products	n.p.	n.p.
Non-metallic mineral products	5.6	17.4
Basic metal products	n.p.	n.p.
Fabricated metal products	8.6	19.7
Transport and equipment	36.5	33.0
Other machinery and equipment	–6.1	6.5
Miscellaneous	–8.2	3.6
Total	–0.1	19.3

The only industry group to show significant growth in employment was the transport equipment group. This industry has an average employment growth rate of 8.7 per cent over the past five years with an increase in 1983–84 of 36.5 per cent over the previous year; total employment in manufacturing fell slightly. Although the industry is comparatively small with just 3.1 per cent of total 'value added' and only 3.7 per cent of employment the performance of the group is dynamic. The industry includes the construction of motor vehicle bodies, trailers and caravans, motor vehicle parts and ship and boat building.

18.3 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Census of Manufacturing Establishments, Summary of Operations by Industry Class, Tasmania (8201.6), annual

Census of Manufacturing Establishments, Details of Operations and Small Area Statistics, Tasmania (8202.6), annual.

ABS Publications Produced by Central Office, Canberra:

Census of Manufacturing Establishments: Summary of Operations by Industry Subdivision, (Preliminary) Australia (8201.0), annual.

Manufacturing Establishments: Summary of Operations by Industry Class, Australia (8202.0), annual.

Manufacturing Commodities: Principal Materials Used, Australia, (8210.0), irregular.

Production Statistics, Australia (Preliminary) (8301.0), monthly.

Manufacturing Commodities: Principal Articles Produced, Australia (8303.0), annual.

Production Bulletins (monthly), Australia —
No. 1: Electrical Appliances (8357.0).
No. 1: Clothing and Footwear (8358.0).
No. 3: Food, Drink and Tobacco (8359.0).
No. 4: Textiles, Bedding and Floor Coverings (8360.0).
No. 5: Building Materials and Fittings (8361.0).
No. 6: Chemicals and By-Products (8362.0).
No. 7: Motor Vehicles, Parts and Accessories (8363.0).
No. 8: Miscellaneous Products (8364.0).

Manufacturing Commodities: Selected Principal Articles Produced, Australia (Preliminary) (8365.0), annual.

Other Publications:

Department of Industrial Development, *Tasmanian Manufacturers Directory*, Tasmanian Government Printer, Hobart, biennial.

Chapter 19

HOUSING AND CONSTRUCTION

		Page No.
19.1	**Housing**	269
19.1.1	Housing Trends, 1930–1985	269
19.1.2	Housing Stock	270
19.1.3	Land Stocks	271
19.1.4	Planning	271
19.1.5	Housing Finance	273
19.1.6	Housing Assistance	274
19.2	**Construction**	277
19.2.1	Building Commencements	277
19.2.2	Economic Implications	280
19.2.3	Construction Industry Employment	281
19.2.4	Planned Constructions Projects	281
19.3	**References**	282

Chapter 19

HOUSING AND CONSTRUCTION

Housing and construction, throughout man's history, have provided important economic and social records of human endeavour. Buildings that have survived provide a record of civilization, of man's achievements and failures, of dreams and values. From the thousands who laboured on the great pyramids of Egypt to the more modest construction gangs of today, building has provided an existence, if not always a living, to a significant proportion of the population. And whether it has been a primitive stone hut, a mud brick house, a palace, or an apartment on the waterfront, the quality and style of man's dwelling units has pointed to the degree of comfort, well-being and wealth of the surrounding community. In short, the provision of housing and the activity of construction are signposts to the life of any community. In many respects the housing and construction industry provides a window through which to gaze upon the life and standards of social man.

19.1 HOUSING

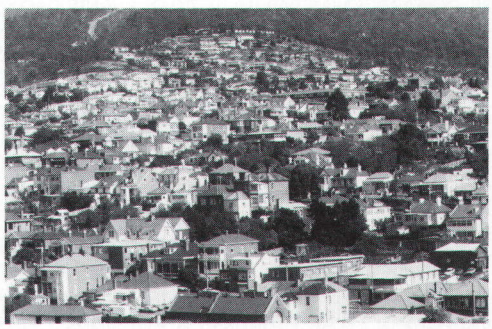
Tasmanians as do other Australians, place great importance upon home ownership. The 1981 census revealed that 64 per cent of Tasmanian households had either bought, or were in the process of buying, their own home. This compares with a figure of 55 per cent in Britain, 51 per cent in France and 42 per cent in The Netherlands.

Home purchase in Tasmania generally entitles the buyer to a freehold title, unlike the long-term leases prevalent in other parts of the world.

The great majority of the population lives in single family households, each occupying separate houses. About 10 per cent of Tasmanian households occupy flats and units.

19.1.1 Housing Trends, 1930–1985

Prior to the Second World War the typical Tasmanian family lived in a single-storey weatherboard home consisting of five or six rooms, and situated on about a quarter-acre of land (1000 sq. metres). Finance for home purchase was available from the Housing Division of the Agricultural Bank of Tasmania. Loans were available which enabled prospective purchasers to place deposits on new homes, but the Government was well aware that these arrangements had done little to alleviate the more general shortage of housing typical of the period. In 1938 the Agricultural Bank decided to offer homes on a rent-purchase



basis, with the purchase price being payable over a maximum period of thirty years. The government also hoped that by becoming involved in the commissioning of building stock it could bring a degree of stability to the local building industry which was characterised by a recurrent cycle of boom followed by recession.

This was to be a continuing involvement despite the outbreak of war in 1939. In 1942 however, shortages of manpower and materials forced the Agricultural Bank to suspend its construction activities. It continued nevertheless, to acquire land and make plans for later implementation until 1944 when, with Commonwealth aid, building activity resumed. The first Commonwealth–State Housing Agreement was entered into in 1945. Under this agreement Tasmania received $5 670 000 which it repaid

upon withdrawing from the scheme in 1950. The scheme had the desired effect; by 1948 building activity had increased 40 per cent on the 1939 level. The Commonwealth and State Governments in 1946 adopted a 'Ten Year Plan' of home construction with the intention of providing continuous employment for a minimum number of 130 000 tradesmen nationally. Apart from its stabilising effect on the construction industry, the plan was also intended to increase national housing stocks so as to accommodate increased post-war immigration. Tasmania continued to build homes from its own resources until 1956, when it entered into a new agreement with the Commonwealth.

In 1953 responsibility for State housing was transferred to a new body, the Tasmanian Housing Department which had been organised to administer the *Homes Act* of that year. Under the *Act*, the new department was responsible for the acquisition and development of land for housing purposes, and for the erection of homes for rental and ultimate sale.

The 1950's and 1960's witnessed as large a change in building techniques as they did in architectural style. The traditional timber-clad weatherboard home gradually gave way to a building with brick or brick veneer exterior walls. In 1954–55, 75 per cent of all houses commenced were of weatherboard construction; twenty years later in 1974–75, this figure had dropped to 5 per cent.

Architecturally, this period saw the beginnings of a trend in urban areas towards the flat, apartment or 'home unit' in a block of such dwellings arranged in a courtyard or terrace fashion.

The 1970's brought further changes in lifestyles and housing patterns. Increased affluence, mobility and leisure time enabled many people to experiment with rural-residential living. This period saw the growth of a new feature, the 'five-acre block' situated within an hour's drive or less of a major population centre.

In 1977 the Housing Department underwent a period of administrative reorganisation and re-emerged as the Housing Division of the Department of Housing; by 1981 it had completed 20 000 homes in the State.

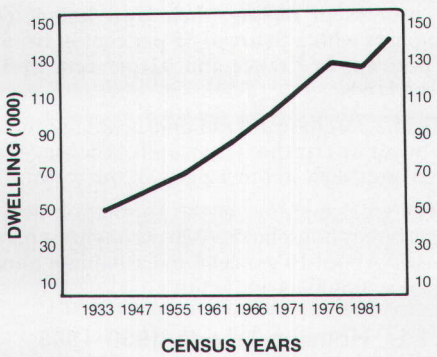
The rural-residential trend continued in the eighties; from 1983–84 to 1984–85 the outlying municipalities of Sorell and Westbury for example experienced a 60 per cent increase in new building commencements. Economic recession, however, affected the industry overall to the point where its fortunes have come to be regarded as a barometer of economic conditions generally. The early years of this decade saw dwelling commencements decline markedly; by 1981 they had dropped 53 per cent from 1976–77. Over the same period, government work offered under tender decreased by some 45 per cent. As building costs increased, so too did the proportion of owner-built dwellings, some 60 per cent of new dwellings being undertaken in this way.

Tasmania has also shared in the world-wide fashion for the rejuvenation of nineteenth century urban architecture for domestic use. As much of Tasmania's long neglected domestic architectural heritage is of this period, the State has benefited greatly from this revitalisation of its Georgian and early Victorian buildings.

Since March 1984, the Tasmanian Development Authority has assumed the responsibility for the administration of funds made available for home purchase assistance, and the State Government provides State loan funds and semi-government loans for lending under the *Homes Act*.

19.1.2 Housing Stock

At 30 June 1984, Tasmanian residential dwelling stock totalled 164 188 homes, flats and units. This figure represents a 2.7 per cent increase in dwelling stock from the previous financial year. The State's total stocks have been subject to an increase of some 7.1 per cent in the five years since the 1981 census, which showed the State to have held stocks of 153 363 dwellings of all types.



Dwelling Stocks, 1930–1985

Outright private ownership of housing stocks runs at about 30 per cent of the total while the 1981 census revealed that 26.8 per cent of all occupied private dwellings were rented.

The rental market is almost entirely composed of the young, the aged and the transient. The construction of new rental stock is not made attractive by the comparatively low rate of return in comparison to other forms of realty investment. As a result, vacancy rates are low, currently only

about one per cent of all rental stock is available at any one time, but it is a form of demand which is unlikely to be met in the short term due to the marginal returns offered.

Governmental housing programs have had a significant impact on Tasmanian housing stocks. In 1984–85 total stocks under government ownership numbered 15 899, representing 9.7 per cent of the State total. Construction activities resulted in 625 new dwellings. Recent policies have also accelerated governmental spot purchasing of pre-existing stocks in addition to those generated by construction programs, with a 43 per cent increase (184) in these acquisitions in 1984–85.

Brick and brick veneer construction continued to dominate the construction of dwelling stock with 83.2 per cent of commencements adopting this mode in 1984–85. This compares with 79.2 per cent at the time of the 1981 census.

19.1 Number and Value of New Houses Approved by Material of Outer Walls, Tasmania, 1984–85

Material of outer walls	*Number*	*Number as proportion of total (per cent)*	*Value ($'000)*
Double brick, stone and concrete	294	8.6	15 401
Brick veneer	2 548	74.6	122 429
Fibre cement	119	3.5	3 022
Timber	375	11.0	12 118
Steel	31	0.9	481
Aluminium	3	0.1	74
Other	45	1.3	1 476
Total	3 415	100.0	155 001

19.1.3 Land Stocks

With strong growth in new house construction during 1984–85, vacant land stocks were made subject to significant reductions. With the reduction in the supply of vacant lots there was an increase in urban subdivision together with an interest in the development of relatively large residential estates adjacent to major urban centres.

During 1984–85 over 1 200 proposals for the subdivision of land were submitted to local councils for approval compared to less than 1 000 during 1983–84.

19.1.4 Planning

Planning seeks to ensure a rational course of future development in which historical preservation is one item on a larger program which seeks to accommodate potential development and present use as well as past character. Sound forward planning is essential for the effective management of Tasmania's architectural resources, both currently as well as in the future. Such planning in the State has broadened in scope considerably in recent decades in order to meet this priority. City and urban planning has moved progressively away from being concerned mainly with the preservation of isolated historic features and the effective siting of noxious industries toward a more all-encompassing approach to the urban environment.

With rapidly increasing levels of capital investment being involved in even the most straight forward construction projects, it is essential to ensure the long term utility of new building. It is equally imperative that different forms of activity be grouped together to their mutual advantage, with services within easy reach of their particular consumers and producers within access to transport and markets.

Preservation is, quite naturally, a priority in Tasmanian planning given the high proportion of Georgian and early Victorian architecture surviving in the State. Current planning facilitates this preservation by seeking to preserve the fabric of area life as opposed to simply maintaining isolated examples of particular architectural and historical merit. To this end detailed studies and plans determining the Sullivan's Cove and Battery Point areas in the South of the State have existed since 1972. Updated in 1979, they provide leading examples of preservation planning in the widest sense.

The Battery Point plan stresses the way in which the original character of the area has been preserved because it has been retained for its original use. The plan, by imposing legislative controls, seeks to maintain it in this original residential form. Strict criteria of acceptability are prescribed, which all construction, demolition and usage must meet if it is to proceed. Parking facilities, signs, facades and profiles of buildings are all determined by the requirements of these regulations, which are administered by a Committee consisting of Hobart City Council and National Trust representatives, local residents, architects and advisors from the University of Tasmania.

A similar set of legislative requirements exist for the whole Sullivan's Cove area. However the stress here is less on pure preservation than it is on stimulating the development of the area in such a way as to enhance its public usefulness and its contribution to the character of Hobart. To this end, efforts have been made to recycle buildings in the area for public use, such as the new Centre for the Arts in the former Jones and Co. building, and to retain open public access to all areas of the Cove.

In 1984–85 a new planning scheme was introduced for the City of Hobart. Currently the plan, as it is still under consideration by the City Council and the Commissioner for Town and Country Planning, operates as an interim scheme under Section 734 of the *Local Government Act* of 1962. The plan covers virtually all of the inner areas of Hobart, from Sandy Bay through the Central Business District to West Hobart. The plan divides this area into a series of districts which are then subdivided into a number of precincts. These divisions replace the more familiar divisions of land use zones.

Under the plan, a district is an area of distinctive use and function, a precinct is a subdivision which has, or will develop, its own unique character. The plan identifies five districts and 45 precincts, and goes on to present a series of statements which define the desired future characteristics of each precinct. Stated are the ideal options in areas such as usage, nature of new construction — shape, size, colour, and describes features such as street furniture, landscaping and pedestrian access. The plan consistently seeks to ensure the uniformity of new development with that which is pre-existing.

The plan was widely publicised during 1984–85 by means of mobile displays in public centres and a total of 157 objections were received which are to be considered at a forthcoming series of public hearings.

Elsewhere in Tasmania it has become mandatory for each municipality to direct urban development according to an overall planning scheme. To assist local municipalities in the provision of a scheme the Town and Country Planning Commission has produced a model scheme which can be adopted by those municipalities lacking specialised resources. By this, it is anticipated that some degree of uniformity can be ensured in Tasmanian planning. In addition, suburban planning developments have been important in Launceston and both Scottsdale and Stanley have produced their own schemes.

These municipal planning schemes were part of a larger legislative overhaul of the planning regulations for 1985 which saw the passing of the *Local Government Amendment (Development and Building) Act* 1985. This new legislation puts emphasis on the streamlining and simplification of the planning process, and encourages the preparation of statutory planning schemes and Interim Orders. The new provisions place time constraints on both Councils and the Commissioner for Town and Country Planning in so far as the preparation and alteration of planning schemes are concerned. An amending provision also enables the current three month public exhibition period to be reduced to three weeks in those instances where the Commissioner considers that the proposed alteration is 'not substantial'. Possibly the most significant amendment to the legislation is that which requires a Council to have an approved Planning Scheme or Interim Order before it can exercise planning control. This intent to streamline the planning process is also reflected in legislative amendments affecting the Planning Appeal Board.

The 1985 amendments have extended the responsibilities of the Planning Appeal Board by introducing an appeal provision in instances where a Council fails to make a determination on a development application within 42 days of receiving it. The new provisions also introduce Compulsory Conferences and single-man Boards and has increased membership of the boards to a 'panel' of nine members. The latter has been introduced to ensure that an adequate number of members is available, and to provide for the sitting of more than one Board at any one time should the situation require.

In contrast to the intent of planning regulations, building regulations relate not to areas, but to the standards to which individual buildings are constructed. 1984–85 has seen the development of the system of regulation in the direction of a more unified and broadly applicable set of requirements. Since early 1984 a working party has been examining all Tasmanian building regulations with the aim of bringing them in line with the Australian Model Building Regulations (AMBR).

Tasmania, unlike other States, has always had a system of consolidated regulations, common to all authorities and government bodies. Such a consolidated system avoids the administrative complexities of a number of separate regulatory systems being imposed by each agency providing services to a single building.

The AMBR initiative will, in turn, bring this system into line with a model system of regulation being adopted by all States. Quite apart from the administrative efficiencies of a standardised system, this will facilitate the activities of interstate contractors on the larger sites in the State and remove a possible source of delay in completion.

Specialised systems of regulation for buildings intended for particular purposes, such as those imposed by the Licensing Board on liquor outlets and by the Department of Tourism or hotels, will remain in place.

The activities of the National Trust have had a significant affect on planning in Tasmania. The Trust has made a major contribution to an awareness of the historical importance of Tasmania's buildings and, although not a

government body, often works with local councils to ensure the preservation of significant features. The Trust maintains a Register of Classified and Recorded Buildings, Places and Objects and through the local councils the Trust will seek to enforce a preservation order should a classified building come under threat. The Trust is currently seeking amendments to the *Local Government Act* in order to make these orders more binding than at present.

The National Trust celebrated its twenty-fifth anniversary in 1985, and in June the State Government announced that the Trust in each region would receive as part of the forthcoming Bicentennial celebrations, $100 000, subject to approval, in order that it might buy, restore and resell a number of buildings.

19.1.5 Housing Finance

The degree of availability and conditions under which housing finance can be obtained constitutes an essential factor determining the level of building activity at any one time. The levels of interest and the actual amount of funding held by lending institutions are inextricably linked with a multitude of shifting economic factors, and because of their volatility, interest rates and loan funds, can be taken as accurate indicators of economic conditions generally.

19.2 Housing Loans Approved, Tasmania, 1984–85

Period	Home loans		Other dwellings	
	No.	*Value ($m)*	*No.*	*Value ($m)*
1984 —				
July	631	16.0	16	0.3
Aug	659	17.5	16	0.5
Sept	651	17.8	12	0.2
Oct	761	20.6	18	0.4
Nov	706	19.3	11	0.3
Dec	539	14.8	23	0.5
1985 —				
Jan	613	17.6	20	0.7
Feb	592	16.5	17	0.4
Mar	716	21.2	14	0.3
April	629	18.7	15	0.4
May	772	22.9	21	0.8
June	627	18.3	26	0.6

Loans for all types of housing during the 1984–85 period amounted to a total of $226.8 million compared with $210.8 million in 1983–84.

Home loans totalled $221.4 million with the remainder being made up by money loaned for the purchase and construction of flats and units. These figures compare with a 1983–84 overall home loan total of some $205 million, an 8 per cent increase. While the proportion of total loan funds granted for home construction remained stable at 97.6 per cent of the total, compared with 97.3 per cent in 1983–84, the figure represents a significant increase in the overall level of home construction in the State.

Funding for other dwellings fell by 7.4 per cent over the same period, from $5.8 million in 1983–84 to $5.4 million in 1984–85, or 2.4 per cent of total funds loaned.

Finance for the construction and purchase of housing is available from a number of sources in Tasmania, but the major share is provided by savings banks. During the 1984–85 period, $138 million in housing loans were obtained from this source.

19.3 Value of Loans Approved to Individuals for the Construction or Purchase of Dwellings for Owner Occupation, Tasmania, 1984–85

Source of loan	*($m)*
Savings banks	138.0
Trading banks	20.8
Building societies	41.6
Other	37.0
Total	237.4

Savings banks are a highly attractive source of finance due to their interest rates being among the lowest of all major lenders, but only in cases where a first mortgage is being sought. Savings banks generally lend only a certain proportion of their own valuation of the property, but this is not a wholly inflexible policy. Priority for loans is usually given to established customers depending upon the availability of funds at the time of application.

Trading banks, responsible for lending $20.8 million in this period, specialise in providing short term finance and personal loans. They make housing loans to established clients, and often provide short term funds for bridging loans to settle purchases prior to alternative finance becoming available.

Home finance is the major function of building societies and most lending is secured by first mortgage. This specialisation allows them to operate on a low margin. Recently, building societies have been permitted to lend on an unsecured basis. Such societies loaned a total of $41.6 million over the 1984–85 period.

Other institutions loaning funds for housing include the Co-operative Housing Societies providing loans to buyers in the lower income

groups. These societies receive their funds from the Government, insurance companies or banks. They are subject to the control of the Registrar of Co-operative Housing Societies, and their rates are among the lowest available, but their funds are generally limited. When the loans in such a Society are paid up, it will then terminate its activities.

Finance companies provide finance for housing which is both short term and more expensive. Occasionally used for supplementary borrowings on second mortgages, loans from this source can have the advantage of a higher loan ratio, up to 95 per cent of valuation, than is standard.

19.1.6 Housing Assistance

The Housing Department Tasmania is the authority through which the State Government exercises its responsibility for public housing in Tasmania. The Department's task is one of ensuring that all members of the population may have the expectation of living in a reasonable degree of comfort. The Department primarily addresses itself to the needs of people on lower incomes, such as old-age pensioners and single-parent families.

The Housing Department Tasmania takes a direct role in the provision of housing for these groups. Since 1953 the Department has concentrated principally upon the construction and maintenance of its housing stocks, and has left the government provision of low cost loans to private home builders and buyers to other government authorities.

As well as changes in administrative organisation, recent years have also seen policy changes within the Housing Department. In the past the overwhelming focus of public housing in Tasmania has been on low density family housing in outer suburban areas. This 'broadacre' approach involved the purchase of large tracts of peripheral land combined with massive construction programs to achieve economies of scale. This focus on the economic aspect of the production of low cost housing did not foresee the adverse social consequences of creating large, isolated and underserviced suburban areas with extremely homogeneous demographic and social characteristics. Recent changes in this policy have been implemented to counter the resulting social problems created by the lack of access and servicing.

Since 1983 the Department has begun spot purchasing established houses in the older suburbs as well as the construction of small-scale infill developments on vacant land within well-established communities. These infill developments serve to integrate public housing developments with the surrounding community facilities and services; spot purchasing allows housing to be made available in specific areas of need. This is well illustrated by the Department's purchase in 1985 of 32 dwellings in the area of the University of Tasmania to house low income students attending the institution.

Amendments have also been made to the provisions of the Act allowing the purchase of Department homes by tenants. Ownership has long been possible if the tenant could arrange alternative finance to purchase the dwelling outright. In April 1985 the Government introduced a new Home Purchase Scheme which attracted considerable interest. Under the new Scheme, tenants have the option of purchasing the dwelling they occupy, another dwelling or even one yet to be built by the Department, on a private contract. The purchase contract is flexible, with repayments being based on household income and interest charges being deferred but not capitalised.

During 1984–85 the number of applications for rental housing assistance from the Department increased by approximately 5 per cent despite a 6.5 per cent increase in the number of applicants allocated accommodation. The shortage of private rental stock and the consequent increases of rental charges are a major cause of this record level of demand for Department accommodation.

During the year the Department purchased 34 small development sites, totalling some 20 hectares, for infill housing and medium density projects throughout the State. Additionally, 118 developed building blocks were purchased for the construction of Department homes at a cost of $1 695 306.

A total of 184 dwellings were purchased during the year; 59 houses and units in the wouth, 25 in the north, and 60 in the north west. In addition, eight special purchases were made for crisis housing and particular community needs.

Over the 1984–85 period the Department commenced a total of 650 buildings; 182 by the Department's workforce, and 468 by private

19.4 Housing Department Tasmania Net Dwelling Stocks at 30 June 1985

Type of dwelling	*Dwellings*	
	Constructed	*Acquired*
Houses	12 138	671
Elderly persons' units	2 114	—
Villas	1 287	147
Multi-unit flats	360	70
Total	15 899	888

contractors. The total number of dwellings completed was 625. Of these, 188 were constructed by Departmental employees and 437 by private contractors.

Defence Service Homes Scheme

The Defence Service Homes Scheme is a Commonwealth scheme that has the aim of assisting certain former and serving members of the Australian Defence Forces to acquire a home by providing long term loans at concessional rates of interest. The Scheme, introduced in 1919 following the enactment of the *War Service Homes Act* 1918, also can provide assistance to the widow, and in some cases the mother, of a deceased eligible person or the wife of an eligible person who is temporarily or permanently insane. Generally, assistance is available to a person who has served during specified times and/or at specified places. Persons eligible for assistance include:

- members of the Australian Defence Forces and nursing services enlisted or appointed for, or employed on, active service outside Australia or on a ship of war during the First World War or the Second World War;
- persons who served in the warlike operations in Korea, Malaya, or Singapore during specified periods;
- persons who served on 'special service' in certain areas of South-East Asia, including Vietnam;
- national servicemen who completed their service on or after 7 December 1972;
- persons who enlisted before 17 August, 1977 and served on continuous full time service on or after 7 December 1972, and completed 3 years effective full-time service;
- persons who enlisted on or after 17 August, 1977, and completed 6 years effective full-time service and entered into a commitment to render further full-time service and who meet certain prescribed conditions;
- persons domiciled in Australia and employed in certain sea-going service during the First World War or the Second World War.

The dwelling must be the intended usual residence and no other home must be currently owned. The Scheme is administered by the Defence Service Homes Corporation whose affairs are conducted and controlled by the Secretary of the Department of Veteran's Affairs.

At present, a waiting period applies to loans to buy a home, but not to loans to build, enlarge, or complete homes. Extensive insurance cover at a competitive premium is available for homes financed under the Scheme.

The principal benefit available is low interest housing loans under the following conditions:

- maximum loan: $25 000
- interest rate: 3.75% per annum on the first $12 000
  7.25% per annum on the next $3 000
  10% per annum on the remainder
  (The effective interest on a loan of $25 000 is approximately 6.8% per annum)
- repayment term: a period not exceeding 32 years.

During 1984–85 the Defence Service Homes Corporation granted 227 loans to Tasmanians. Of this total, 49 were for the construction of homes, 4 were utilised for the purchase of new homes, 172 for the purchase of established homes and 2 for the enlargement of existing homes. Capital expenditure for the year was $4.9 million and loan repayments totalled almost $2.8 million.

19.5 Defence Service Home Loans, Tasmania

Loans	*1983–84*	*1984–85*
No. granted for —		
Construction of homes	36	49
Purchase of homes	151	176
Enlargements to existing homes	2	2
Total	189	227
Capital expenditure ($'000)	4 079	4 937

The First Home Owners Scheme

On 19 May 1983 the Minister for Housing and Construction announced the State Government's intention to introduce a new housing assistance scheme, the First Home Owners Scheme. This new scheme was designed to replace the pre-existing Home Deposit Assistance Scheme and the first home buyers Tax Rebate Scheme introduced by the previous Government. A feature of these schemes was that the size of the grant was related to the amount of savings held in an approved form by the applicant.

The new scheme was intended to provide assistance in the form of a subsidy, or a reduced subsidy together with a lump sum, allowing home buyers to choose the option best suiting their needs. In contrast to the earlier schemes, there was to be no requirement to hold savings in an eligible form.

Assistance under the First Home Owners Scheme is available to people who contract to buy or build their first home, or owner-builders starting to build their first home, on or after 1 October 1983, and who meet the regulated income test requirements.

The amount of benefit payable is greater for applicants with dependant children at the date of home acquisition. Applicants purchasing from 1 October 1983 to 16 April 1985 who comply with the eligibility criteria, are eligible for up to $5 000 if they have no dependant children; up to $6 500 if the applicant has one dependant child and up to $7 000, if the applicant has two or more dependent children. All grants are payable over a period of five years.

Applicants have three options as to how the grant will be paid. Option One is a subsidy payable over a period of five years. Option Two is a lump sum plus reduced subsidy payable over five years, and Option Three is a larger lump sum and reduced subsidy payable over five years.

One of the major tests of eligibility is income. The income to be tested is generally the taxable income for the financial year immediately preceding the year of home acquisition. Applicants may however elect to be tested against taxable income in the year that the home will be acquired.

In 1984, the eligibility requirements were changed, but the new requirements relate only to homes acquired after 22 August and affect income limits. Joint applicants (with or without dependant children) and sole applicants with dependant children may qualify for the maximum assistance if income does not exceed $20 000. Assistance is reduced in proportion to the amount by which income exceeds $20 000 and ceases all together at $27 900. For sole applicants without dependant children the maximum assistance is payable if the income is less than $10 000. The upper limit at which assistance ceases for these applicants is $13 950.

A benefit can be made for any new or established house, home unit, flat or any other kind of dwelling. It must, nevertheless, be intended for the applicant's principal place of residence. The land on which the home is built must be owned by the applicant or held in a form of secure tenure recognised as such under the legislation; for example a long term lease, or right of occupancy of the land from the Crown.

Applicants must continue to own and occupy the dwelling to maintain eligibility for the subsidy over the five year period. Where a dwelling is sold and another acquired within twelve months, entitlement for the subsidy can continue without loss.

The Tasmanian Development Authority

On 1 March 1984 the Agricultural Bank of Tasmania was absorbed into the newly formed Tasmanian Development Authority. The new Authority is responsible for the administration of funds made available under the *Home Purchase Assistance Act* 1978.

The Tasmanian Development Authority offers two schemes which are designed to provide financial assistance to Tasmanians seeking to buy or build their first home, and thereby further stimulate the State's construction industry; both these schemes operate in conjunction with co-operative housing societies.

The first scheme, the Home Build Plan, is intended to benefit those on low incomes who want to build their first home. People applying for these low interest loans are required to either own, or be in the process of purchasing, a suitable block of land. Priority in allocating loans is determined, like the First Home Owners Scheme, in accordance with an income test. Priority in allocating loans will go to those applicants whose gross weekly salaries do not exceed $350. Since July 1985 this level has been increased to $375. If there is a second income in the family, then the combined total should not exceed $500 per week.

Home Build interest rates were fixed for the first year of the loan at a rate of 9 per cent; changes in July 1985 saw this increase to 12 per cent. After the first year the rate charged will vary according to the conditions of the Commonwealth–State Housing Agreement. Generally these rates are expected to remain considerably lower than ruling market rates. Repayments are set according to income and usually amount to about one-quarter of gross pre-tax earnings.

Certain restrictions are placed on the size and value of homes to be built under this scheme. Firstly, size is limited to 120 square metres, the value of the block of land upon which it is built should not exceed $14 000 ($18 000) in city areas, and the total value of the house and block together should not exceed $50 000. This limit was increased to $55 000 in July 1985. Additionally, a block size limit of two hectares is placed on homes financed under the Home Build scheme.

Like the Home Build plan, the Authority's Home Buy plan is financed in cooperation with the co-operative housing societies. Priority for these loans is directed towards those with dependant children.

In order to qualify for a Home Buy loan the applicant or applicants must meet an income test. The gross weekly income test for the principal applicant was increased in July 1985 from $300 per week to $375 per week. Where there is a second income, then it should not exceed $450 per week, having been increased from the previous $400 per week. An assessment may be made of the applicant's assets to determine eligibility. However personal effects are not regarded as assets for the purpose of the assessment. Interest rates, although subject to periodic review in the light of the applicant's financial position, will be lower than market rates.

19.6 Tasmanian Development Authority, Advances for Housing (*a*)

Particulars	*1983–84*	*1984–85*
Advances approved —		
Number	624	537
Value ($'000)	18 030	17 437
Advances outstanding at 30 June ($'000)	83 081	90 338

(*a*) Excludes advances to Co-Operative Housing Societies.

19.2 CONSTRUCTION, TASMANIA, 1984–85

by The Master Builders' Association of Tasmania

During the 1984–85 financial year, the Tasmanian private housing sector experienced an upsurge in the overall level of activity, a trend that was to be shared by the commercial/industrial sector during the later months of the year.

The 24 per cent increase of new home commencements in 1984–85 resulted from the combination of a number of factors. The assumption that economic recovery would continue led to a greater availability of home finance at favourable interest rates. Rental charges increased as vacancy rates fell, and the continuing incentive of the First Home Owners Scheme, combined with the rising market prices for established homes all went to create a favourable cost comparison between building and buying.

The availability of finance and greater buying power affected home design as well as numbers. Larger homes were requested by the private sector, with an increase in the popularity of family rooms, ensuites, and non-contemporary home designs in comparison with previous years.

The public housing sector was spurred on by the rental shortage, the severity of which forced the Commonwealth Government to make available $654.4 million in grants in May 1985, further increasing the demand for skilled labour within the housing sector.

The commercial/industrial sector, although not showing as dramatic an increase as the housing sector, was stimulated during the latter part of 1984–85 by a number of proposals and approved developments. The most significant of these projects was the $45 million Hobart Sheraton Hotel in Macquarie St., Hobart, a $3 million Government office block in Devonport, a $2 million Physical Education Centre for the Launceston Technical College, and the Norwood Village complex for the retired and elderly, to list several examples.

Cost adjustments resulting from the rise in the cost of building materials have been but one negative factor affecting the building industry in general towards the end of 1984–85. In the housing sector, there were rising costs in clay bricks, plumbing and electrical fittings, timbers, ready-mix concrete and plaster products. This, in turn, contributed towards an increase of apporoximately 9.1 per cent in the cost of building a home over the twelve month period.

The commercial/industrial sector, although not as dramatically affected by changes in economic and market conditions, had nevertheless to bear significant cost increases in materials. Concrete, structural steel, cladding and sheeting products as well as electrical and fire fittings and air conditioning equipment all combined to create an approximate 7 per cent increase in cost over the 12 month period.

Consequently the end of 1985 saw increases in the cost of housing. The earlier upward trends were slowed by rising interest rates and the resultant decline in the availability of finance. In addition, stricter government guidelines in regard to eligibility of the First Home Owners Scheme were introduced and with the rising costs and diminishing availability of land, all factors combined to limit growth in the private building sector.

In contrast, the commercial/industrial sector experienced setbacks which were as much the result of administrative factors as they were of material costs. The introduction of the building superannuation schemes, effective as of July 1984, for construction site workers resulted in a wage increase of $11 per week for employees within the commercial/industrial sector, together with the additional administation costs incurred by the employer. Industrial action meant work stoppages, bans and limitations within the commercial building sector during this period, resulting in financial burdens being placed on developers and building owners as those projects affected, fell behind schedule.

Overall, however, 1984–85 was a good year for the building industry; it resulted in a 60 per cent increase in the total value of all buildings approved which in turn promoted a profitable year for those industries directly associated with the activities of the building industry.

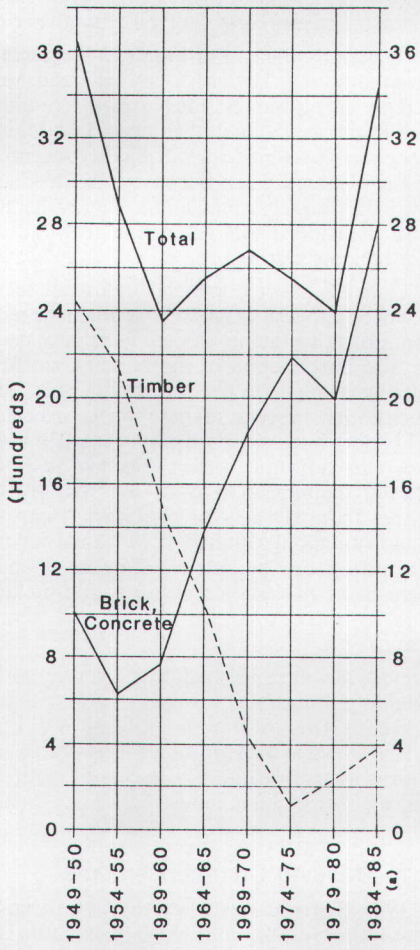
19.2.1 Building Commencements

In 1984–85 there was a healthy upturn in the Tasmanian building industry. Tasmania led Australia with the greatest growth in the commencements of new buildings and dwellings for the year ending march 1985.

During 1984–85 total new residential commencements in all areas of the State amounted to 4 010. This represents an increase of 24 per cent on the previous year's figure of 3 230, and is 72 per cent above the 1982–83 figure of 2 330 commencements. As a result, Tasmanian residential construction in

1984–85 was experiencing its highest level of activity since 1975–76 during which construction commenced upon some 4 121 new residential buildings.

Regionally the commencements were spread fairly evenly in relation to population density. The statistical division of Hobart led with an increase of 15.8 per cent, while the Southern division as a whole showed a 10.7 per cent increase. The divisions of Northern and Mersey Lyell followed with 9.9 and 8.5 per cent respectively. Statewide the average increase in residential commencements ran at 11.2 per cent.



New Houses Commenced

19.7 Building Commencements, Tasmania

New dwelling units	*1983–84*	*1984–85*
Private sector	2 580	3 340
Public sector	654	664

During 1984–85 building commencements in Tasmania were valued at almost $302 million, an increase of $100 million on the figure for 1983–84.

The total value of residential construction commenced was just over $173 million, a figure 41.8 per cent higher than the $122 million of the previous year. Breaking this figure down further, private commencements totalled just over $147 million, a 44.1 per cent increase on 1983–84, whereas public housing commencements increased only slightly in comparison; up 22.2 per cent to slightly less than $25 million for 1984–85. A further $117 million were spent on non-residential construction commencements throughout the State while a further $13 million worth of alterations and additions to residential buildings were commenced.

Major Construction Projects 1985

As Tasmania's tourist industry seeks to continue its expansion, $60 million is being spent on developing new accommodation and upgrading existing properties. The projects include the international hotel being built on Hobart's waterfront and multi-million dollar extensions by the two major accommodation chains, Four Seasons and Innkeepers.

Four Seasons projects include refurbishing major properties at Port Arthur, Hobart and Wynyard and upgrading the facilities in Burnie. Construction work at the Wynyard Motor Lodge included doubling the number of motel units as well as building a block of 10 two-bedroom, self contained units. Eventually this redevelopment will entail the construction of 24 motel units and 10 self-contained units, as well as extensions to the existing Red Jacket Restaurant. An on-site laundry, sauna and indoor pool will also be built in the complex. The Innkeepers group is refurbishing its premier motor inn at Lenna in Hobart and has completed work at the Colonial Motor Inn and the Penny Royal accommodation and visitor complex in Launceston. Innkeeper's Fox and Hounds property at Port Arthur is to undergo a $1 million expansion.

The largest single undertaking commenced in 1984–85 was the Sullivan's Cove international hotel, a revised design finally found public acceptance after the developers original proposal became the subject of a public outcry. G.H.D. Planner West had originally sought to construct an 18 storey glass-fronted tower; the substitute proposal called for 12 storeys and a design more sympathetic to the historic surroundings of the cove. The new design, to be built between Macquarie and Davey Streets on the waterfront, comprises a two-storey podium base and glazed atrium. A coffee shop, prestige restaurant, cocktail lounge, public bar and shopping facilities will be included at the entry level. A ballroom and

19.8 Value (*a*) of Building Commenced, Tasmania ($'000)

Type of building	Private Sector		Public Sector		Total	
	1983–84	*1984–85*	*1983–84*	*1984–85*	*1983–84*	*1984–85*
New houses	91 600	121 900	12 122	18 011	103 800	139 900
Other new residential buildings	10 172	25 118	8 076	6 676	18 248	31 800
Total new residential building	101 800	147 000	20 198	24 687	122 000	171 700
Alterations and additions to residential building	10 000	12 500	30	216	10 000	12 700
Hotels, etc.	1 049	777	48	—	1 097	777
Shops	5 151	12 810	16	133	5 167	12 934
Factories	4 443	5 977	778	840	5 221	6 817
Offices	5 440	19 798	2 249	13 373	7 689	33 171
Other business premises	4 482	7 610	6 450	6 462	10 931	14 072
Educational	4 551	2 799	17 066	28 884	21 617	31 683
Religious	488	1 045	—	—	488	1 045
Health	761	6 476	3 178	716	3 939	7 192
Entertainment and recreational	1 916	2 494	7 620	2 015	9 537	4 510
Miscellaneous	1 560	1 985	2 757	3 296	4 317	5 282
Total non-residential building	29 842	61 771	40 162	55 720	70 004	117 490
Total all building	141 600	221 200	60 390	80 623	202 000	301 900

(*a*) Value when completed.
(*b*) Figures shown for the value of new houses, total residential buildings, alterations and additions, and total all building (private sector and total ownership) have been rounded to the nearest $100 000. These figures are based on a sample survey and the data are affected by standard errors.

conference facilities will be located on the second level, with the 260 rooms contained in the two accommodation towers.

Other major construction commencements in the Hobart area included the $7.8 million carpark and retail complex in Collins St for the Retirement Benefit Fund, the first stage of the ABC Offices and studios on the old railway terminus site and additions to the University Clinical School attached to the Royal Hobart Hospital.

The concept of the retirement village is a comparatively recent one in the area of housing for the elderly. It has the advantage of allowing residents a maximum of independence while ensuring the convenient provision of the specialised medical and recreational facilities required by the elderly. The concept involves considerable investment in construction due to the high number of separate facilities required. The planning and commencement of a number of these establishments made a significant contribution to the levels of construction activity during 1984–85. A notable example of Governmental initiative in this area were the Housing Department plans to build five Victorian-style homes for elderly people in Mowbray's historic Jackson Street.

The homes, consisting of eight units, will feature bay windows, gables, verandahs, small paned windows and the lattice work characteristic of the Victorian era. They will be built of tumbled brick to give an aged mellow appearance, and the period features will be continued in the use of Western Red Cedar for the construction of door and window frames rather than the usual aluminium and the traditional picket fencing. The interior of the buildings, in contrast, will incorporate all the modern features to make for maximum convenience for the elderly. Work was expected to start late in 1985.

One of the largest private residential projects was undertaken in Devonport during 1985. The project, 14 high class home units, was undertaken by Yaxley Holdings. The units were built on a large block on Victoria Parade at a cost of about $900 000.

An indoor cricket centre, one of the largest in the State and the most modern in Australia was developed at East Devonport. A large warehouse on the Esplanade was remodelled and renovated and will house three indoor wickets with computerised scoring equipment, a kiosk, creche, full hangeroom amenities and a large viewing area with a mezzanine floor. The cost of setting up the Centre was $400 000.

Other projects in Devonport include renovations to the Gateway Hotel valued at about $400 000, new Government offices ($2 million) and alterations to the Sunrise Motel ($200 000).

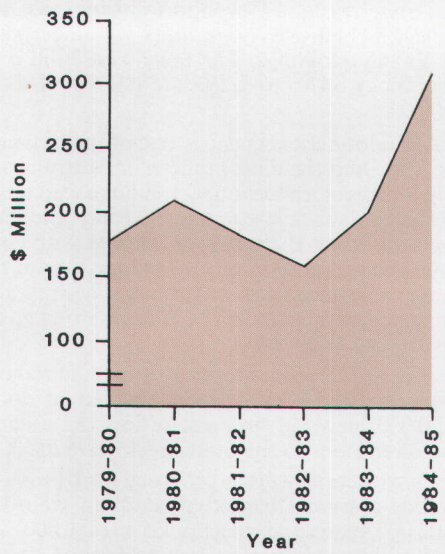
Construction projects proposed for Ulverstone include a second basketball stadium valued at $500 000, extensions to a brick kiln ($80 000) and a $1 million subdivision proposal for 15 houses and 8 units.

The Burnie Council approved $4.36 million in building plans to April 1985 compared to $2.5 million to April 1984. Work in Burnie includes the $300 000 Roberts Stewart Development, phase two of stage one at the Burnie Hellyer College and house and villa contracts worth $500 000. There are plans to refurbish the grandstand at West Park, renovate a section of the Commonwealth offices, construct sporting clubrooms and ongoing work at the APPM complex.

The City of Launceston had one of its busiest years for building in 1985. In September 1985 14 major building projects worth nearly $25 million were under construction, with a further $46 million worth of work planned to start within six months.

Major work included:

- a $3 million Launceston Community College's Resource Materials Centre;
- a $2 million physical education centre within the adjoining Launceston Technical College grounds which is the first stage in the Launceston City Council's $15.4 million redevelopment;
- a $7.5 million masonic village at Norwood, the biggest elderly retirement village and nursing home complex to be built in Launceston. When completed the complex will contain a 90 bed nursing home and chapel plus 69 units;
- the $300 000 grandstand construction at the St Leonards sporting complex;
- the first stage on the $15.4 million reconstruction of the Launceston Community College Paterson St campus.



Value of Building Commencements

The National Trust opposed design plans for the construction of an $8 million multi-storey car park on the site of Launceston's Paterson St. central car park saying that it would detract from the streetscape and the historic nature of the area. The Launceston Corporation and the Melbourne based company Kings Parking Co. planned to develop two inner city sites as retail/parking centres which would employ 300 construction workers.

19.2.2 Economic Implications

The economic implications of the activities of the construction industry are as varied as they are far-reaching. The condition of a considerable proportion of the economy is affected by the level of building activity, which is in turn subject to the vagaries of the economy generally. The significant role which construction plays within the economy is inherently related to its position as a point of both production and consumption of goods, services and incomes.

The level of construction activity has important implications for local levels of consumption simply because it consumes enormous quantities of a wide variety of materials and expertise. Equally, construction activity generates demand for ancillary as well as essential services. The actual construction is but a single part of a whole process which must take place before a building is ready for occupation; legal services, architectural consultants and interior designers may all be called upon before completion.

Equally important are the implications which construction has for the level of labour demand. Construction activity is, by its very nature, rarely continuous. Even over the construction period of any one project labour requirements will be subject to change; for instance specialised tradesmen are required at different stages of a project, and thus employment in these trades is subject to the number of projects underway. To soften the impact of discontinuous employment, Government construction programs are often co-ordinated with their commercial counterparts in an attempt to maintain a steady demand for labour.

In addition to its generation of demand and consumption, the construction industry is also a leading actor in the area of production and generation of income. Construction is an important avenue for investment; each building constructed is a major asset in which an initial expenditure is set off against the prospect of the long-term generation of income. Rental payments and other income generated from the commercial use of space together with the capital appreciation of the building itself amount to the economically productive function of construction.



woodchips since 1971. In 1984-85, 2.7 million tonnes were exported.

Three of the six main industry groups which in 1983-84 provided 85 per cent of employment and 84 per cent of value added in the manufacturing sector in Tasmania.

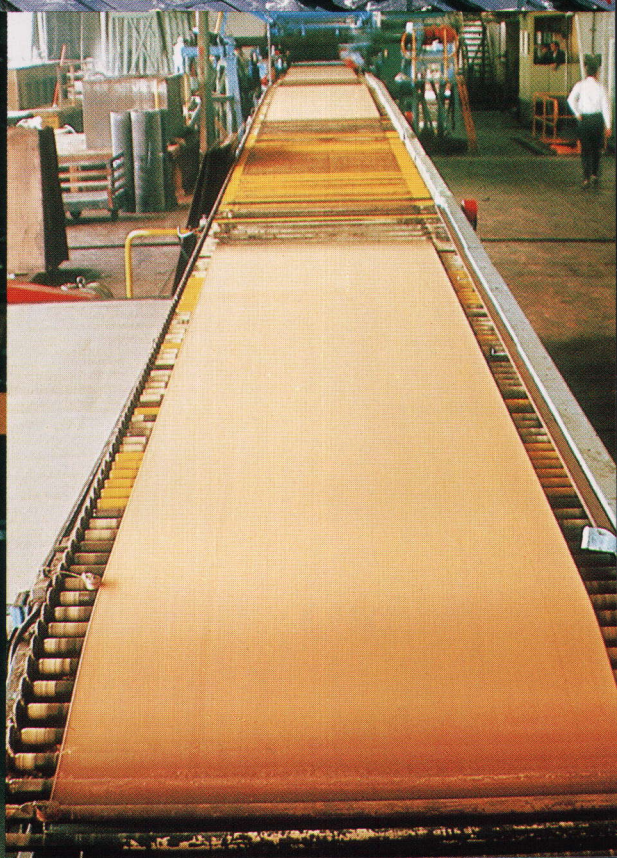
Top: Aluminium ingot stocks at Comalco. *(Comalco Aluminium [Bell Bay] Limited)*

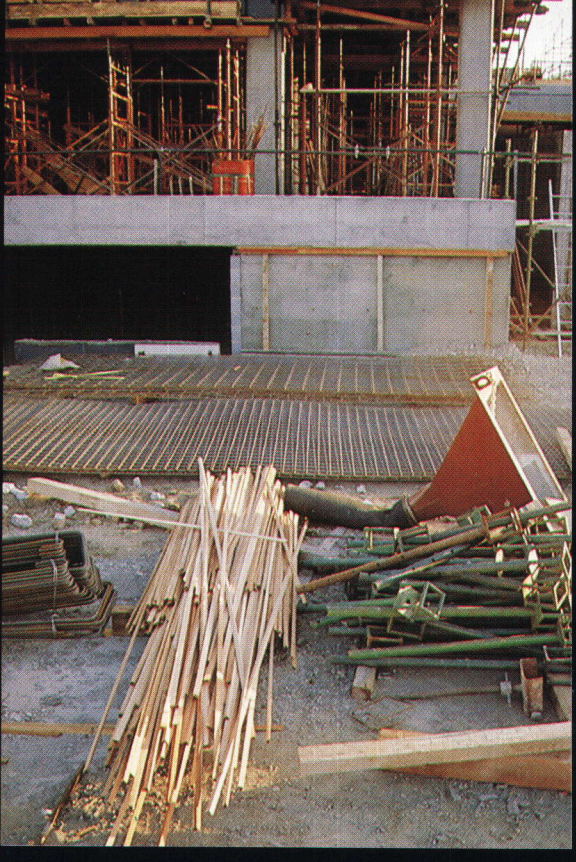
Bottom left: Processing peas, Devonport. *(Government Stills Photographic Section)*

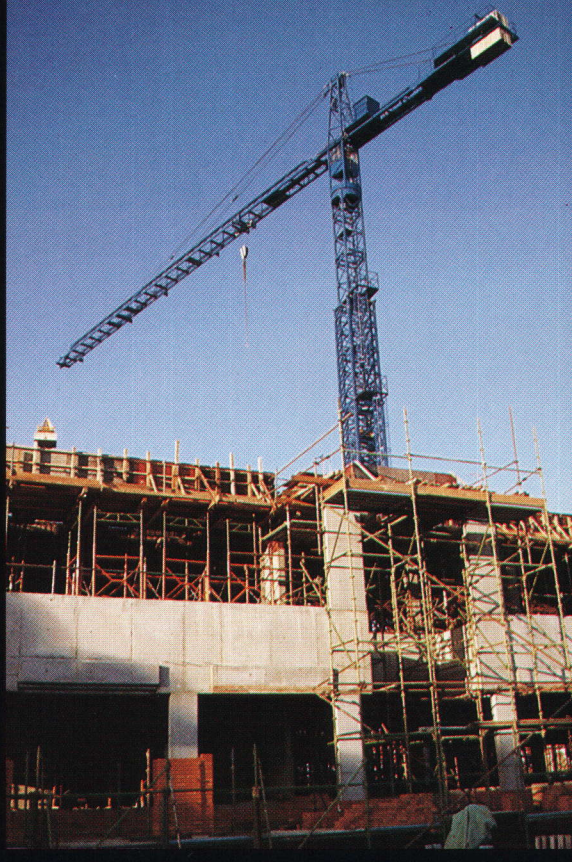
Bottom right: Manufacturing cardboard, Burnie. *(Government Stills Photographic Section)*













Construction of the Hotel Sheraton, Hobart's International Hotel. (Edward Gall)



Fidestar - ferro alloy carrier.



Poznan - loading onions and discharging paper pul



Heroj Kosfa Stamenrouis - loading bulk wool.



Brisbane Trader - ANL RO-RO, LO-LO carrier.



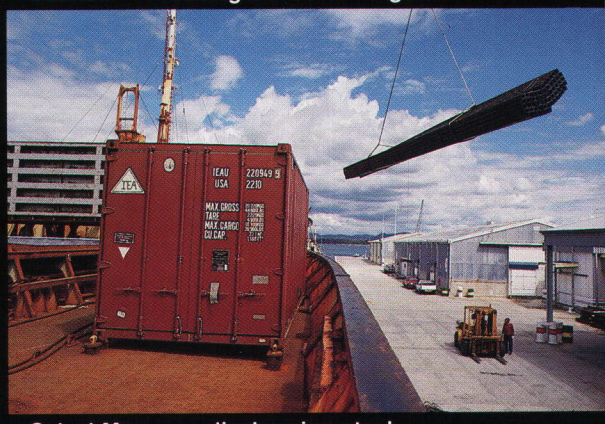
Richway - ferro alloy carrier.



Gdansk - loading aluminium ingots.



River Embley

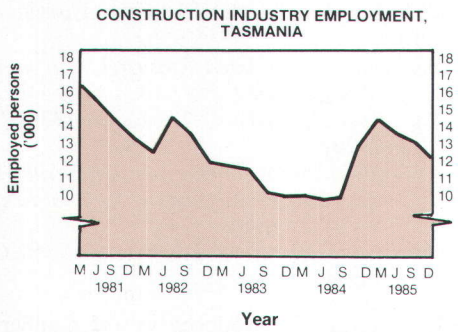


Seiyei Maru - discharging steel.

(Port of Launceston Authority)

19.2.3 Construction Industry Employment

The construction industry has played a major role in the improvement in the Tasmanian economy over the last 12 months. Over the last year about one third of the growth in total employment has occurred in the construction industry. Four quarter moving averages show that construction employment had risen by 3 400 or 33.6 per cent to 13 500 in the 12 months to August 1985 compared with a rise in total employment of 11 000 (or 6.5 per cent) from 168 000 in August 1984 to 179 000 in August 1985.



Construction Industry Employment

Fluctuations in the industry cause problems; where after years of recession the industry picks up, the available labour force will have been reduced to the point where labour shortage acts as a brake on the resurgence. In the cases of some larger projects in the State there is evidence of cost increases being due to the necessity to bring specialist contractors from inter state as a result. Problems related to the lack of skilled tradesmen can be long term. Training terms for most trades within the industry provide for a minimum of three years in trades such as tilers, and four years for joining and plumbing apprenticeships.

Employment in the construction industry in Tasmania, after peaking at around 16 000 in 1981, went into a long, steady decline so that by early 1984, only slightly more than 10 000 people were employed on construction projects. This decline followed the general downturn which badly effected the State economy with the construction industry suffering more than any other industry. Conditions began to improve in the later part of 1983 and after spare capacity had been utilised, construction employment began to rise during the middle of 1984. By early 1985, employment had increased to almost 14 000. In general terms, the labour market for building occupations has moved into equilibrium following an increase in activity in the construction industry, it is envisaged that this situation will persist into 1986. With the large construction projects due to commence in the later part of 1985, some minor shortages of skilled building tradesmen occurred in particular parts of the State, bricklayers were identified as the trade in shortest supply.

Nevertheless, in all the building trades, well qualified, experienced tradespersons have little or no difficulty obtaining suitable work. This is a significant improvement on the situation which existed in 1984 when surplus labour remained unemployed.

The 1982–83 recession in the economy had two important effects on the supply of skilled labour to the construction industry. Firstly, the lack of employment opportunities forced some tradesmen out of the industry, either into some other occupations or interstate in search of construction work. Secondly, there was a large reduction in the apprenticeship intake, which is expected to have a serious effect on the number of skilled tradesmen entering the industry over the next few years.

Since the recovery, however, both these trends have been reversed to some extent. There is evidence that a number of tradesmen have returned to the State as labour demand has increased following the rise in building activity. The apprenticeship intake also increased in 1984 with a further 20–25 per cent increase on 1984 figures expected in 1985.

19.2.4 Planned Construction Projects

During October 1985 the Department of Employment and Industrial Relations released a report on the prospects for non-dwelling construction in the State. The Department undertook their statistical examination of the construction industry in order to assess the level of demand for construction labour and trades over the following two or three years. The writers of the report, the Labour Market Projects Section of the Department, noted that information regarding this area was limited to the value of building approvals. Such information gave no indication as to the actual time span over which approved construction work was to actually take place.

The project was given added impetus by the need for information regarding the extent and timing of the demand that these projects would create, and the ability of the Tasmanian construction labour force to effectively meet it. The Department was aware of the importance of co-ordinating labour resources with project requirements and that labour shortages would have a depressing effect on construction activity. Given the economic importance of the construction industry and the leading role it had played in the State's economic recovery made its maintenance a priority.

Initially it was hoped that the assessment of labour demand would be detailed enough to determine the projected demand for individual building trades and occupations. However hopes for such detailed projections were frustrated as they were subject to so many uncertain factors at the time of the survey. The problems experienced by developers in obtaining building approvals, planning and securing contracts made it impossible for them to provide information sufficiently detailed to enable such projections.

The study was limited to the examination of non-dwelling construction valued at $200 000 and over. It excluded civil construction projects such as dam or road building, sewerage or drainage works and the like.

Research on planned projects revealed a total of 220 projects were planned for the State which were regarded by developers with sufficient confidence for them to provide details of expected commencement and completion dates as well as an estimate of approximate building costs.

Of these 220 projects, 118 or 54 per cent were initiated by the State Government whereas 79 or 36 per cent emanated from the private sector. Analysis of the geographical distribution of these projects reveals that they are concentrated in the south of the State, which could lay claim to 115 or 52 per cent of the total. The north of the State had 64, or 29 per cent, while the north-west had 41, or 19 per cent of the State total. Virtually no private sector activity was intended for the north-west.

The researchers went on to make a number of carefully qualified predictions as to future levels of activity in the State.

The results were interpreted as showing a definite peak in construction activity in August and September, 1986. This was later than expected, nevertheless the report was confident that activity would remain in a buoyant condition over the entire year, and possibly until the second quarter of 1987. Minor falls were accounted for by seasonal drops, the commencement and completion dates of projects are usually arranged to coincide with summer vacations so that sites are not simply left uncompleted for periods of time. Other short term drops occur as a result of developers' apparent preference for coordinating their activities with the beginning of the financial year.

Three broad phases of activity were isolated by the report. The first of these was one of steadily rising activity levels throughout late 1985 and the first half of 1986. The second phase was one of a steady decline during the later part of 1986 and the first half of 1987, the third and final phase sees constant levels over the rest of the study period — the second half of 1987 and all of 1988.

The implications of this pattern of activity for construction labour were regarded as straightforward. The demand for labour by the building construction sector was expected to be at its greatest during the third quarter of 1986. As the level of labour demand at the time of the report was regarded as balanced shortages in some building trades were thus expected in this quarter. The report suggested that with the combination of labour shortages and employers offering over-award payments to attract scarce labour the potential existed for further construction cost increases.

19.3 REFERENCES

ABS Publications proudced by the Tasmanian Office:

Building and Related Statistics, Tasmania (8780.6), annual.

Building Approvals, Tasmania (8731.6), monthly.

Dwelling Unit Commencements Reported by Approving Authorities, Tasmania (8741.6), monthly.

Building Activity, Tasmania (8752.6), monthly.

ABS Publications produced by the Canberra Office:

Cross-Classified Characteristics of Persons and Dwellings, Tasmania (2449.0), 1981 Census of Population and Housing.

Building Approvals, Australia (8731.0), monthly.

Building Activity, Australia (8752.0), quarterly.

Construction (other than building) Activity, Australia (8761.0) quarterly.

Price Index of Maerials used in Building other than House Building, Six State Capital Cities and Darwin, Australia (6407.0), monthly.

Price Index of Materials used in House Building, Six State Capital Cities, Australia (6408.0), monthly.

Other Publications:

Housing Department Tasmania, *Housing Assistance in Tasmania, Government Agencies and Cooperative Housing Societies*, Third edition, Glenorchy.

Department of Employment and Industrial Relations, *Housing Industry Resources Report — Labour, Tasmania*, May 1985.

Indicative Planning Council for the Housing Industry, *Housing Statistics, Tasmania*, (AGPS Hobart).

Director General of Housing and Construction, *Annual Report*, Government Printer, Hobart.

Chapter 20

TRADE

		Page No.
20.1	**History**	283
20.2	**Tasmania's Trading Partners**	284
20.2.1	Market Changes	284
20.2.2	Main Trading Partners	284
20.3	**Value of Overseas Trade**	285
20.4	**Commodities Traded**	286
20.4.1	Commodities Exported	286
20.4.2	Commodities Imported	287
20.5	**Tasmanian Ports**	287
20.5.1	Hobart	287
20.5.2	Launceston	288
20.5.3	Devonport	289
20.5.4	Burnie	290
20.6	**Retail Trade**	290
20.6.1	Historical	290
20.6.2	Retail Sales	291
20.7	**Prices and Price Changes**	293
20.7.1	Consumer Price Index	293
20.8	**References**	294

Chapter 20

TRADE

20.1 HISTORY

Tasmania's first recorded trading activity occurred in 1808 when a cargo of sugar arrived at the colony from Bengal. Exports began in 1812 when the *Cyclops* sailed for Sydney with a cargo of locally grown wheat. In June 1813 ports were opened to commerce and trading began in Van Diemen's Land. 20 000 bushels of wheat were exported to Sydney in 1817. In 1819 wheat to the value of £4000 was exported and in 1820, 43 917 pounds of salted meat which was produced at the settlement of Hobart, was exported to Sydney.

During the 1820's the economy of the Colony was becoming diversified though it still remained very basic. Imports arrived from Britain, India, Mauritius and Batavia while exports were shipped to Britain and Sydney. In 1822 goods exported consisted of wheat, oil, whalefins, seal and kangaroo skins, logs of pine and beefwood, salt, wool, horses and hides. Barley, potatoes, whalebone, cedar logs and fallow were included in 1823.

In the Statistical Returns of Van Diemen's Land 1835–38 compiled from official records in the Colonial Secretary's office, it was recorded 'that the imports for the three years have increased 20 per cent, and the very pleasing fact that the exports for the same period have increased at the astonishing rate of 81 per cent, or from £320 679, in 1835 to £581 475 in 1838.'

The most prominent item imported into Van Diemen's Land, during the very early years of settlement was livestock. By 1837 however, two years after the settlement of Port Phillip, livestock had become the major export line which, together with wool, dominated export trade.

During the 1840's there was a falling off of exports due to a slump in the price of the Colony's staple commodity, wool. There was also a decline in the export of oil and whalebone which were also main commodity export items. The largest increase in trade occurred with the British Colonies during this period.

In 1842 the value of imports into Van Diemen's Land was a high £21 per head compared with only £2 10s per head in Britain. The value of exports for the same year, per head of population, was £10 a head for Van Diemen's Land compared with only £2 for Great Britain and Ireland. By the mid 1800s the value of trade, especially exports, had grown dramatically.

20.1 Value of Imports and Exports
(£)

Trading partner	*1824*	*1830*	*1835*	*1838*	*1842*	*1847*
Imports from —						
Great Britain	50 000	153 478	403 879	556 746	401 738	517 786
British Colonies	10 000	93 251	149 664	129 602	145 181	162 376
United States	—	—	3 368	2 661	5 287	5 840
Foreign States	2 000	8 569	26 735	13 947	35 247	38 591
Total	62 000	255 298	583 646	702 956	587 453	724 593
Exports to —						
Great Britain	10 000	52 031	218 754	321 871	299 198	338 609
British Colonies	4 500	93 742	101 716	251 604	276 478	257 125
United States	—	—	61	8 000	4 158	—
Foreign States		207	148	—	2 675	5 142
Total	14 500	145 980	320 679	581 475	582 509	600 876

As the colony developed and progressed through the late 1800s the exporting of locally produced commodities became increasingly important to the economy of the State.

20.2 Balance of Trade, Tasmania

Year	*Total ('000)*	*Per head of population ($)*
1850	–30	–0.4
1860	–212	–2.4
1870	–288	–2.8
1880	+286	+2.5
1890	–822	–5.7
1900	+1 074	+6.2
1930–31	–492	–2.2
1940–41	+2 932	+12.0
1950–51	+4 626	+15.9
1960–61	+9 918	+27.9
1970–71	+113 451	+290.7
1980–81	+333 163	+783.5
1984–85	+327 900	+746.0

By 1880 the value of exports had exceeded the value of imports. This balance of trade (excess of exports over imports) see-sawed over the following five decades then stabilised over the period 1937–38 to 1948–49 with exports once again exceeding the value of imports. From 1949–50 to 1954–55 the balance fluctuated once again but from 1955–56 the value of exports has consistently exceeded the value of imports. As a result of this healthy balance of trade the State plays an important role as an earner of export income for Australia.

20.3 Total Trade, Tasmania ($'000)

Year	*Imports*	*Exports*
1979–80	1 168 845	1 451 499
1980–81	1 207 063	1 540 226
1981–82	1 258 548	1 574 562
1982–83	1 339 113	1 728 949
1983–84	1 461 691	*r* 1 907 153
1984–85	1 895 269	2 093 077

20.2 TASMANIA'S TRADING PARTNERS

20.2.1 Market Changes

From the earliest days of Tasmania's settlement the United Kingdom has been the main overseas market for the State's exports. Over the last 20 years or so Tasmania's overseas markets have changed markedly.

In 1957–58 Tasmania's seven major trading partners in terms of the value of goods exported were as follows:

- United Kingdom $18.6 million
- United States of America $4.0 million
- India $3.7 million
- Italy $2.8 million
- France $2.8 million
- Japan $2.8 million
- Federal Republic of Germany $2.4 million

A decade later Thailand and the Philippines had also become predominant markets.

During the late 1960s Japan became the principal recipient of Tasmanian exports when it substantially increased its iron-ore requirements. In the twelve months to June 1968, Japanese importers spent a total of $9 million on Tasmanian goods and the following year this had jumped to $17 million, most of which was for iron-ore.

The new ranking of Japan, United Kingdom and the United States persisted until 1972–73 when the UK slipped behind the U.S. In 1975–76 the United Kingdom was replaced by Indonesia and Malaysia became an important market in 1976–77 when it increased its intake of tin concentrates from Tasmania.

20.2.2 Main Trading Partners

Countries bordering the Pacific Ocean are now Tasmania's main trading partners. Japan, United States, Malaysia, China (excluding Taiwan Province), Indonesia, China (Taiwan Province) and Hong Kong now provide the markets for 77 per cent of Tasmania's exports.

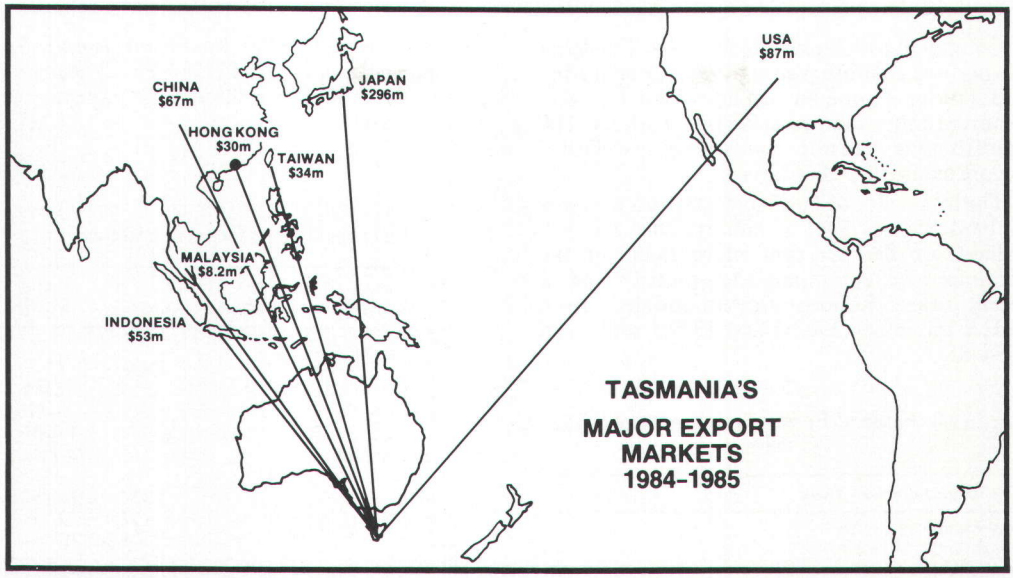
Japan

In 1984–85 Tasmania exported a total of $295.6 million worth of goods to Japan. This represented 35 per cent of the total value of Tasmania's foreign exports.

20.4 Tasmanian Exports to Japan, 1984–85

Commodity	*Quantity (tonnes)*	*Value ($'000)*
Abalone	985	12 516
Cheese	2 817	4 430
Ferro-alloys	3 000	1 740
Meat — Beef and veal	1 594	4 330
— Lamb and mutton	1 544	2 461
— Other	61	171
Milk, dried	1 362	1 596
Onions, fresh	1 050	320
Ores — Copper	87 744	35 659
concentrates — Iron ('000t)	2 252	72 279
— Lead	32 758	6 093
Wool, greasy	2 150	8 948
Zinc	5 745	6 677
Restricted items (*a*)	—	133 937
Other	—	4 491
Total	—	295 648

(*a*) Comprises the value of items for which details are not publishable, mainly woodchips and aluminium.



United States of America

The major commodity exported to the United States of America is ferro-alloys. In 1984–85 63 500 tonnes were exported, an increase of 240 per cent on the year before. Export of lead concentrates to the United States increased in quantity by four per cent over the same period, but with a world wide decline in metal prices the value of this commodity decreased by 40 per cent.

20.5 Tasmanian Exports to the United States of America, 1984–85

Commodity	*Quantity (tonnes)*	*Value ($'000)*
Abalone	124	1 686
Beef and veal	4 547	9 909
Cadmium	237	665
Casein	513	1 153
Cheese	1 226	2 533
Ferro-alloys	63 500	9 304
Lead concentrates	28 279	18 568
Machinery	—	549
Rock lobster	92	2 595
Wool, greasy	1 013	4 415
Zinc	20 685	26 724
Restricted items (*a*)	—	2 590
Other	—	6 580
Total	—	87 271

(*a*) See footnote table 20.4.

Malaysia

Tasmania's most valuable export to Malaysia is tin concentrates. In 1984–85 the value of this commodity accounted for almost 78 per cent of the total value of Tasmania's exports to Malaysia.

20.6 Tasmanian Exports to Malaysia, 1984–85

Commodity	*Quantity (tonnes)*	*Value ($'000)*
Apples, fresh and chilled	1 062	632
Meat, fresh or frozen	158	152
Paper	1 410	1 255
Tin concentrates	8 800	63 815
Zinc refined	6 527	8 100
Restricted items (*a*)	—	5 825
Other	—	2 130
Total	—	81 909

(*a*) See footnote table 20.4.

20.3 VALUE OF OVERSEAS TRADE

Tasmania has a healthy balance of total trade. The value of exports in excess of imports has increased over recent years by more than 10 per cent. In 1984–85 it was $746 per head of mean population, a decrease of 27 per cent from 1983–84. While the value of exports between 1983–84 and 1984–85 rose by 9.7 per cent, imports over the same period rose by 21 per cent. The rise in the value of imports was due mainly to an increase in the transport equipment, cars and petroleum.

20.7 Balance of Trade

Year	*Total ($'000)*	*Per head of mean population ($)*
1981–82	316 014	737
1982–83	389 836	905
1983–84	445 559	1 025
1984–85	327 900	746

Compared with the rest of Australia, Tasmania has performed more than creditably. Per head of population, Tasmania has imported less and exported more than Australia as a whole. The State thus plays an important role as an earner of export income for Australia.

The total value of Tasmania's exports overseas in 1984–85 was $841.3 million. This was $70 million, or 8.6 per cent more than for the previous year, continuing the upward trend of recent years. Imports almost doubled, from $202.8 million in 1983–84 to $389.3 million in 1984–85.

20.8 Value of Foreign Trade, 1984–85 ($'000)

Country or country group	*Exports*	*Imports*
Association of South East Asian Nations (ASEAN) —		
Indonesia	52 785	113
Malaysia	81 909	1 063
Philippines	4 663	1 014
Singapore	16 803	17 238
Thailand	12 558	292
European Economic Community (EEC) —		
Belgium-Luxembourg	7 449	758
Denmark	497	852
France	10 380	3 644
Germany, Federal Republic	21 270	12 293
Greece	2 882	8 130
Ireland	636	27
Italy	9 234	4 114
Netherlands	10 843	4 353
United Kingdom	13 805	13 007
Other major trading partners —		
Japan	295 648	51 721
United States of America	87 271	(*a*) 159 614
Hong Kong	30 338	1 652
New Zealand	18 319	23 832
China-Excluding Taiwan Province	67 287	1 363
Taiwan Province	34 074	11 353
Canada	3 565	23 270

(*a*) Includes equipment valued at $130.1 million imported on a temporary basis and intended to be re-exported.

20.4 COMMODITIES TRADED

20.4.1 Commodities Exported

The once valuable export commodity of fresh apples has declined from 83 544 tonnes in 1964–65 to only 6 896 tonnes in 1984–85.

A rapid increase in the export of live sheep overseas has occurred in the past 30 years. In 1964–65 only 12 sheep were exported in contrast to 143 017 in 1984–85.

A lucrative market has been found for Tasmanian angora goats. In 1984–85, 1 179 angora goats valued at $2.6 million were exported to New Zealand.

20.9 Tasmanian Exports, 1984–85

Commodity	*Unit*	*Quantity*	*Value ($'000)*
Animal casings	—	—	483
Apples	t	6 896	3 577
Casein	t	529	1 186
Cheese	t	5 219	9 490
Ferro-alloys	t	86 237	17 281
Fish, crustaceans and molluscs —			
Abalone	t	1 974	26 157
Rock lobster	t	117	2 798
Scallops	t	275	2 064
Floor coverings	sq m	45 215	858
Food and beverages	t	1 091	2 363
Hides and skins —			
Cattle and calf	t	2 429	5 030
Sheep and lamb	t	2 386	4 170
Inorganic chemicals	—	—	147
Live animals —			
Cattle	no.	26	
Sheep and lambs	no.	143 017	3 085
Machinery	—	—	3 558
Malt extract	t	2 256	1 616
Meat —			
Beef and veal	t	7 381	17 517
Lamb	t	2 199	3 932
Mutton	t	1 789	2 872
Offals, edible	t	627	780
Milk, dried	t	4 673	4 466
Onions, fresh	t	16 823	7 042
Ores and concentrates —			
Copper	t	87 744	35 659
Iron	'000t	2 252	72 279
Lead	t	67 824	29 286
Tin	t	8 800	63 815
Tungsten	t	1 605	12 564
Paper	—	—	8 507
Refined metals —			
Cadmium	t	495	1 515
Zinc	t	158 192	192 825
Other	t	—	888
Tallow	t	6 772	3 706
Textile fabrics	—	—	1 794
Timber	cu m	5 568	2 506
Wool, greasy	t	12 277	49 501
Restricted items (*a*)	—	—	222 267
Re-exports (*b*)	—	—	2 180
Other overseas exports	—	—	21 546
Total overseas exports	—	—	841 316

(*a*) Comprises the value of all export items for which details are not available for separate publication. This comprises mainly woodchips and aluminium.
(*b*) Re-exports are defined as goods, materials, or articles originally imported which are exported in the same condition in which they were imported.

By far Tasmania's most valuable export commodity is ores and concentrates. From 1975–76 to 1979–80 the value of ores and concentrates increased 169 per cent. In 1984–85 all ores and concentrates were worth $213.6 million to the State. The value of refined zinc has also increased over recent years.

20.4.2 Commodities Imported

20.10 Tasmanian Imports, 1984–85

Commodity	*Unit*	*Quantity*	*Value ($'000)*
Antiques	—	—	1 157
Chemicals	—	—	17 149
Clay (Bentonite, Kaolin, etc.)	t	8 896	1 953
Fertilisers, crude	t	79 053	4 428
Machinery —			
Power generating	—	—	9 123
Specialised for particular Ind.	—	—	18 566
Metal working	—	—	638
General industrial equipment	—	—	9 417
Office and automatic data processing	—	—	624
Telecommunication, sound recording	—	—	1 785
Electrical apparatus and appliances	—	—	4 318
Other	—	—	243
Metal manufactures —			
Iron and steel	—	—	5 422
Non-ferrous	—	—	1 261
Other	—	—	6 908
Motor cars and commercial vehicles	no.	5 244	28 600
Motor cycles	no.	836	880
Nuts, edible	t	347	1 017
Paper and paper products	—	—	2 197
Petroleum products —			
Automotive gasoline (petrol)	'000L	83 550	21 739
Fuel oil	'000L	12 882	3 284
Petroleum coke	t	40 011	6 072
Professional and scientific instruments	—	—	1 778
Textile fibres —			
Sheep and lambs	t	444	1 320
Other	t	474	1 312
Textile yarns and fabrics	—	—	23 117
Tyres and tubes	—	—	1 985
Wood pulp for paper making	t	69 818	35 064
Other overseas imports	—	—	(*a*) 177 923
Total overseas imports	—	—	389 280

(*a*) Includes equipment valued at $130.1 m imported on a temporary basis and intended to be re-exported.

Tasmania's imports from overseas, while continuing to increase in value, are largely dominated by six main items:

- woodpulp $35.1 m
- motor cars and commercial vehicles $28.6 m
- textile yarns and fabrics $23.1 m
- petrol $21.7 m
- specialised machinery $18.6 m
- chemicals $17.1 m

In 1984–85 these items comprised 55 per cent of the value of all goods imported for use in the State.

20.5 TASMANIAN PORTS

Tasmania has a number of ports capable of accommodating overseas vessels; they are sited on the Derwent and Huon Rivers in the south (Hobart and Port Huon); in Spring Bay on the east coast; on the river Tamar in the north (Inspection Head, Long Reach and Bell Bay); on the Mersey River (Devonport), in Emu Bay (Burnie) and at Port Latta, all in the north-west. All these ports provide depths of approximately nine metres or more of water at berths; Port Latta provides a depth of 16 metres nearly one and a half kilometres off-shore.

Interstate and intrastate trade passes through the main ports of Hobart, Launceston, Devonport and Burnie as well as through ports at Strahan, Stanley, Ulverstone, Currie (on King Island) and Lady Barron (on Flinders Island).

20.5.1 Port of Hobart

The port at Hobart is situated on the Derwent River in the Sullivan's Cove and Macquarie Point area. The approach to the Derwent and the port is made through a very wide strait between Bruny Island and Tasman Peninsula, approximately 50 kilometres south-east of the city.

Sullivan's Cove is u-shaped with 610 metres separating the southern and northern arms. The Macquarie Point area has become the major centre of port activity and has been provided with modern cargo handling equipment, including a 254-tonne fully mobile crane suitable for handling containers.

The most striking feature of the port is the ease with which large vessels can be brought to berth. Tides present no problem and dredging of approach channels has never been necessary.

1985 Operations

(The following information was extracted from the Annual Report of the Marine Board of Hobart for the year ended 30 September 1985.)

- A record of 3 272 774 tonnes of cargo moved through ports under the jurisdiction of the Board.

- Imports showed a substantial increase of 179 370 tonnes (13.13 per cent) on the previous year.
- Interstate cargo discharged increased by 184 926 tonnes.
- Export cargo decreased by 1.8 per cent over the previous 12 months mainly due to a decline in timber and woodchip exports.
- A five year contract between Australian Newsprint Mills and the Union Steamship Company for the transport of eastern seaboard newsprint was signed.
- The Hobart Marine Board has begun a capital works program which will involve an estimated expenditure of some $13.48 million over the next three year period.
- The continuation of construction at the new Selfs Point oil terminal wharf, the first stage in providing a container handling Gantry Crane at Macquarie No. 4 and 5 berths and the planned commencement of a new $2.4 million workshop/Port Operation Complex at Macquarie Point form the major works for the coming year.
- After full evaluation a cargo handling facility now known as the 'Hobart Speedy Loader' was successfully introduced.

  The concept of the loader is to correctly and easily locate the container spreader on top of containers when loading lift-on lift-off ships. All sizes of containers can be accommodated.

  Working trials have shown that the Speedy Loader improves the rate of loading containers with ship mounted or shore slewing cranes by at least 30 per cent.

20.11 Port of Hobart Trade Statistics, 1984–85

Commodity	*Cargo (tonnes)*
Inward —	
Motor vehicles	113 199
Coke and coal	544
Petroleum products	289 930
Wheat	17 201
Salt	21 570
Soda ash	2 317
Paper pulp	44 798
General	1 055 413
Total inward	1 544 972
Outward —	
Fruit	50 503
Wool	7 016
Newsprint	202 427
Timber	40 131
Woodpulp	2 123
Woodchips	765 537
General	660 065
Total outward	1 727 802
Total trade	3 272 774

20.5.2 Port of Launceston

The Port of Launceston is situated on the River Tamar, which originates at the confluence of the North Esk and South Esk Rivers at the City of Launceston and flows 60 kilometres to Bass Strait. At its mouth deep water and broad expanses of river provide a valuable natural harbour. In this area, encompassing Bell Bay, Inspection Head and Long Reach, are located the major activities of the Port of Launceston. A tidal range of up to 3.6 metres creates strong tidal currents, which by natural scour eliminate the need for any maintenance dredging in the lower reaches of the river.

1984–85 Operations

(The following information is reproduced from the Port of Launceston Authority Annual Report 1984–85.)

- 1984–85 was the port's second-best year on record.
- Another all-time record for gross registered tonnes of shipping was established.
- Record trade passed through the ANL terminal for the second successive year.
- A dramatic increase was recorded in the number of direct overseas calls through common user facilities which are being extended at a cost of $5.2 million.
- A big demand for ship repairs with work completed valued at $2.7 million.
- Imports totalled 1 880 198 tonnes, an all-time record.
- Exports totalled 2 660 408 tonnes.
- Work reached half-way mark on the two-year study into silt deposits in the upper reaches of the Tamar River.
- The PLA completed civil construction works on jetties and wharves on Flinders Island.
- Total revenue exceeded $10 million for the first time.

Commodities and Customers

General cargo

General cargo imports and exports increased by 7 per cent in the past year, due to increased inward ANL cargo and increased shipments to Europe.

Ferro manganese and sinter. BHP's ferro alloy producer TEMCO contributed 13 per cent of the total port tonnage.

As well as importing the raw materials used in making ferro alloys and sinter, TEMCO also imported coke, pitch, coal, quartzite and limestone.

The company has started its three-year uprate project which includes $49.5 million worth of furnaces and associated works. Another $15 million will be spent on capital works at the plant.

Aluminium. Aluminium producer Comalco contributed 7.5 per cent of total port tonnage with imports and exports of raw and processed materials.

In a growing Asian market, China has become more important to Comalco, buying 20 905 tonnes of aluminium in the past year out of the total output of 117 000 tonnes.

Each year Comalco imports about 240 000 tonnes of alumina plus large supplies of coke and coal-tar pitch.

Onions. The large growth in direct shipments to Europe by Polish Ocean Lines and Australia to Europe Shipping Conference vessels coincided with a big jump in exports of onions.

From a revenue tonnage of 7 026 last year, Bell Bay saw 21 501 tonnes of onions cross the wharves on their way to Europe, Japan and New South Wales.

This was a growth of 206 per cent on the previous year's trade.

Fresh fruit and vegetables. Overall imports of fresh fruit and vegetables totalled 26 639 tonnes, an increase of 9 per cent on the previous year. Exports of apples and pears were particularly good, with growth from 70 503 to 135 808 bushells in direct overseas shipments.

Frozen vegetable exports. Exports for the year totalled 59 118 tonnes which was an increase of just under 2 per cent.

Frozen and chilled cargo. Imports for the year exceeded last year's figures by 23 867 tonnes — a jump of 171.3 per cent.

Freight forwarders. In the past year two freight forwarders undertook significant developments at Bell Bay.

Tradex built a container-handling depot and is constructing offices and a transit shed which will form a valuable addition to the port's transport links.

Refrigerated Freight Lines centralised its Tasmanian operations through Bell Bay and has established itself at the Authority's cold stores.

Woodchips. The Forest Resources and APPM woodchip berths on the Tamar maintained their output, exporting 1 900 661 tonnes — a slight drop on the previous year's figures.

Steel. A 24.6 per cent jump to 34 702 tonnes in iron and steel imports during the past year underlines Bell Bay's importance as the iron and steel port for Tasmania.

Motor vehicles. Tonnage of imported new vehicles increased by 9.8 per cent.

Timber. Exports in this area increased by 3.4 per cent with softwood exports comprising the biggest tonnage increase.

Wheat. Wheat imports through Inspection Head remained at about the same level as last year, with 19 194 tonnes being imported.

Wool. Shipments of wool through Bell Bay were slightly down on the previous year. However, direct shipments of wool to Europe almost doubled to 12 419 bales.

20.5.3 Port of Devonport

The Port of Devonport is situated on the Mersey River within two kilometres of the coast. The entrance is sheltered by Mersey Bluff on the west and by a retaining wall extending over half a kilometre northward from the eastern shore of the river. The river was always a natural harbour for small craft and its development as a major port by extensive dredging and engineering works has resulted in a secure harbour for large ships.

The Authority has assumed responsibility for the Devonport Airport under the Commonwealth Airport Local Ownership Plan. The airport has been reconstructed by the Authority from Commonwealth grants of $7 million to medium jet standard.

1984–85 Operations

(The following information was extracted from the Port of Devonport Authority Annual Report 1985.)

- In October 1984 all ANL cargo services were withdrawn.
- On 20 June 1985 the *Abel Tasman* commenced service.
- The *Mary Holyman* began a Devonport based service to Melbourne and Adelaide in January 1985.
- The port seemed well positioned for a significant revival centred around the general cargo base offered by William Holyman Pty Ltd and the TT-Line.
- Despite early concerns that the PDA would finish 1984–85 in deficit, a surplus of $597 944 was attained.
- The cold storage complex, Tasmania's largest, produced an operating surplus of $325 000.
- Other significant developments included the $2 million upgrading of the *Abel Tasman* berth and terminal, the impending sale of the PDA's Meat Meal Rendering Plant at Quoiba to Richardson's Meat Industries; the purchase of the Port Phillip pilot boat *Hawk II* and prospects of renewed live sheep shipments following channel deepening by the Board's dredge *Port Frederick*.

20.5.4 Port of Burnie

The ports of Hobart, Launceston and Devonport all lie within the shelter of rivers but the Port of Burnie, on Emu Bay, was built out into the open sea in the lee of Blackman Point. Protection from the potentially rough seas of Bass Strait is afforded by two large breakwaters. Burnie is a deep-water port with no tidal restrictions, except occasionally for the larger vessels, and is virtually fog-free. It is in operation 24 hours every day, and vessels can be at full speed 20 minutes after departure. All wharves are connected to the State railway system.

20.12 Port of Burnie Trade Figures, 1985

Commodity	*Tonnes Mass*
Inward —	
Industrial machinery	3 937
Wheat	1 480
Ilmenite	68 868
Paper pulp	23 719
Salt (in bulk)	5 842
Fuel oil	87 738
White spirit	27 409
Acid	73 857
Vehicles	2 949
General cargo	136 572
Transhipment cargo	1 779
Empty returns	33 911
Coal	12 721
Total inward	480 782
Outward —	
Milk products (*a*)	7 763
Meat meal (*a*)	1 802
Paper	164 542
Particle board etc.	19 714
Meat and fish	7 447
Cheese	8 489
Butter	2 448
Timber	22 215
Vehicles	203
Tallow	1 543
Fruit and vegetables	112 180
Mineral concentrates	351 455
Refined metals	38 703
Wool and hides	8 562
General cargo	56 522
Transhipment cargo	1 700
Empty returns	7 114
Total outward	812 402
Total trade	1 293 184

(*a*) Formerly included in 'General cargo'.

1984–85 Operation

(The following data was extracted from the Marine Board of Burnie Annual Report 1984–85.)

- The Board had a record tonnage of cargo through the Port (1 293 184 mass tonnes).
- The Australian National Line continued to expand its holding within the port and now has a terminal in Burnie which is third in size in the Commonwealth. Only Melbourne and Sydney have larger installations.
- The commencement in June 1985 of the joint venture service by Brambles and the State Government has created a new concept for Tasmanian shippers with containers being shipped on MAFI trailers giving a door to door service by the one company.
- The introduction of a 65 tonne twin lift Portainer capable of handling all of Tasmania's overseas general cargo has boosted the State's ability to handle most container ships.
- A new Port Control Centre is being designed with the intention of having its construction completed early in the 1985–86 financial year.
- The expansion of trade through the port, particularly the ever increasing number of containers, creates an on-going requirement for additional land, and as a back-up for future requirements a foreshore reclamation project was completed during the year. This provided three hectares of industrial land in close proximity to the wharf area.

20.6 RETAIL TRADE

Retailing provides a distribution service to the public. The competitive nature of this service ensures that it adapts readily to changing technological, social and economic conditions. The history of retailing, over the past 55 years, illustrates the industry's ability to change according to conditions.

20.6.1 History

The economic depression in the early 1930s imposed harsh conitions on all sectors of the economy. Unemployment was very high (although declining) until the Second World War and economic activity, including retailing, was at a relatively low level.

The Second World War reduced unemployment so rapidly that labour shortages were created. Stocks of some goods were extremely short which resulted in 'black markets' for some goods and the growth in trading in second-hand goods.

After the war consumer demand for goods such as furniture, electrical appliances and domestic hardware increased strongly and Department Stores became of increasing importance in the distribution of goods. They provided a full range of services such as a wide stock selection, free delivery, individual sales and attention and expertise and both long and short term credit facilities.

The distribution of retailers tended to fall into 4 main situations: the city centres dominated by

large department stores and speciality shops; the suburban centres with mostly foodshops, newsagents, and hotels and only some other shops such as clothiers; the local suburban grocery shop; and the rural general store.

Trends in the 1940s and 50s included a reduction in the number of suburban grocery stores, and with the increasing mobility of the rural population, the general stores tended to specialise into food stores.

Shopping Centres

There has been a continuing shift of retailing activities from the central city area to suburban locations. A number of shopping centres were built in various Tasmanian suburbs in the 1970s. Typically incorporating major department stores they included, smaller specialised retailers, as well as supermarkets with the aim of giving the maximum variety of goods at the one location.

Self-serve

Self-selection and self-service was given impetus during the Second World War with increasing labour shortages. The self-service grocery store provided the customer with easy access to the selection of goods which were well displayed. After the Second World War labour shortages continued and the cost of labour started to rise rapidly. This helped strengthen the self-service innovation as retailers sought to contain costs in a competitive field.

However while self-service retailing on an ever increasing scale has become the standard pattern, personalised service has begun a come-back. Smaller specialised shops offering better customer service are becoming more and more popular and companies utilizing varying forms of multi-level-marketing are expanding by retailing through networks of people operating on a part-time basis.

Technology

The computerised ordering of stock, scientific control of merchandise, electronic cash registers at point of sale and electronic bar code readers are examples of the technological change which has taken place in the retail industry over recent years.

Centralised Buying

Large stores and buying groups, because of their ability to buy in bulk, can often offer their customers goods at a lower price than a smaller store which is required to buy stock in much smaller amounts. In order to place smaller stores on a more competitive buying basis compared with their larger counterparts, a number of organisations have centralised buying and distribution functions for groups of individually owned and managed stores, especially in grocery retailing.

Advertising

Advertising has been widely used in the retail industry especially to boost new products but also to increase demand for existing products. Prior to television, before 1960, most advertising used the print media and to a lesser extent, radio, to publicise the retailing message.

A more recent development has been the periodical use of the 'sales bill', a coloured, illustrated magazine type catalogue distributed door to door, sometimes by post, but more often by hand distribution contractors.

Shopping Hours

Tasmania's shop trading hours legislation prohibits stores employing more than 100 staff from open trading. Supermarkets are permitted trading to 9 p.m. on Thursday and Friday nights and till noon on Saturdays. These longer trading hours encourage family shopping and make shopping easier, particularly for working people.

Shopping hours are also extended prior to Christmas in many stores to cater for increased family shopping.

Finance

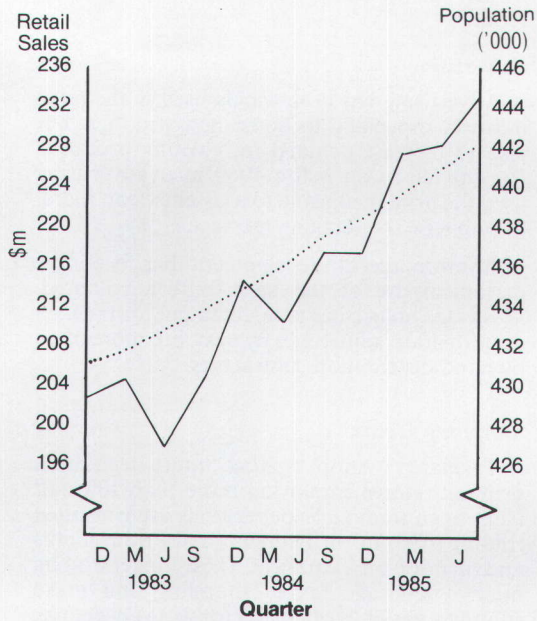
Many retail stores offer hire purchase schemes financed by companies set up for the purpose. However, hire purchase has declined in popularity in relation to time-payment, budget accounts and personal loans for retail purchases.

'Lay-by' is another method of purchase offered by many stores. It is relatively expensive to the retailer because of the storage, handling and clerical work it involves and many retailers charge a small fee for the service.

The advent of credit cards, especially Bankcard which was introduced in the early 1970s made short-term credit more widely and readily available and for the first time enabled small stores to compete, in providing credit, with the larger stores.

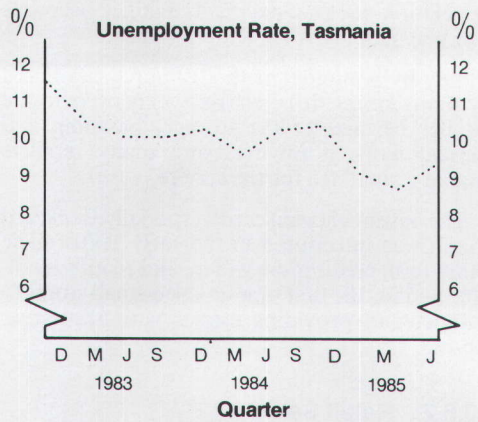
20.6.2 Retail Sales

The underlying movement in the value of retail sales over recent years is of overall growth despite a downturn lasting from June 1982 to June 1983. With prices adjusted to show constant values, the total value of retail sales in Tasmania increased by 9.2 per cent from July 1981 to June 1985. During this period the estimated resident population grew by 3.5 per cent.



Quarterly Retail Sales, Tasmania; Seasonally Adjusted and at Average 1979–80 Prices, and Population.

The downturn, lasting 12 months, corresponds to a period of higher unemployment, peaking at 11.6 per cent in December 1982. While per head of population, Tasmanians are spending more than four years ago, the level of sales is vulnerable to prolonged periods of increased unemployment.



Unemployment Rates, Tasmania

A 12 month period of retail sales shows, predictably, substantial increases for December. In 1985 sales for December increased by 32 per cent over November; a similar increase was recorded for the previous December. This was four per cent better than for Australia as a whole.

20.13 Value of Tasmanian Retail Sales ($ million)

Month	*Department stores*	*Total*
1984 —		
October	11.3	105.2
November	12.8	111.2
December	24.3	145.4
1985 —		
January	11.5	106.7
February	10.4	99.9
March	11.7	106.7
April	14.6	108.7
May	14.8	116.6
June	12.8	105.7
July	13.2	109.4
August	13.7	110.6
September	12.1	106.6
October	14.7	118.4
November	16.6	121.8
December	29.6	161.3

Most of the increase occurred in department store sales, which in Tasmania was up by 78 per cent and for Australia as a whole, by 70 per cent.

20.14 Value of Australian Retail Sales ($ million)

Month	*Department stores*	*Total*
1984 —		
October	422.3	3 851.4
November	475.8	4 086.7
December	800.9	5 195.2
1985 —		
January	393.3	3 802.0
February	342.8	3 517.2
March	401.9	3 847.1
April	448.3	3 846.5
May	536.9	4 246.2
June	428.0	3 809.3
July	452.8	4 074.2
August	445.2	4 135.8
September	442.6	4 020.7
October	494.5	4 401.7
November	536.0	4 580.8
December	911.5	5 874.0

Other retail businesses to record marked increases in retail sales in December were, clothing and fabric stores, 54 per cent; electrical goods stores, 50 per cent; newsagents, 47 per cent; and hotels, liquor stores and licensed clubs, 33 per cent.

The total value of retail sales for 1985 for Tasmania was $1372 million compared to $1224 million in 1984.

20.7 PRICES AND PRICE CHANGES

Another price rise! Prices of most goods are always going up. Those who do the weekly shopping know that $10 this week seemed to have bought less than $10 last month. In some countries the change is much more dramatic, with price rises daily.

But even in Australia prices have risen enormously, depending on the time frame. For instance, a haircut for $8 in 1985 would have cost about 30¢ in 1901; an item costing 47¢ in 1901 would cost about $12.57 bought in 1985. That's an increase of over 2500 per cent! Even since 1981 retail prices have risen by more than 35 per cent.

The value of price indexes is that they allow this kind of measurement. The retail price index for example is often used by Government and authorities such as the Conciliation and Arbitration Commission to measure price changes over time.

20.15 Retail Price Index Numbers Six State Capital Cities Combined

Year	*Index number*
1901	47
1911	53
1921	90
1951	167
1981	926
1985 (*a*)	1257

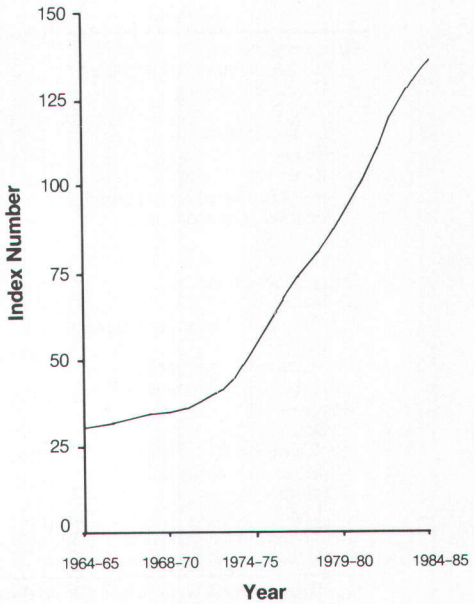
(*a*) Weighted average of eight capital cities.

The retail price index most commonly used is the Consumer Price Index.

20.7.1 Consumer Price Index

This is the householder's guide to price changes. It measures quarterly changes in the price of goods and services that account for a high proportion of expenditure by metropolitan wage and salary households. It is made up of eight main groups of expenditure items; food, clothing, housing, household equipment and operation, transportation, tobacco and alcohol, health and personal care, and recreation and education. Each of these groups is indexed separately for specific purposes, or as is the usual practice, grouped together as a summary of the changes in prices affecting the wage-earner's weekly expenditure.

Treated as a group the Index shows a steep rise commencing in the early 1970s, and continuing. But all groups of prices have risen considerably. Since 1980–81 the health and personal care group has risen least, while the tobacco and alcohol group has risen most.



Consumer Price Index, All Groups, Hobart

20.16 Consumer Price Index, Hobart

Group	*1980–81*	*1984–85*
Food	100.0	136.1
Clothing	100.0	127.6
Housing	100.0	135.2
Household equipment and operation	100.0	139.5
Transportation	100.0	143.9
Tobacco and alcohol	100.0	151.3
Health and personal care	100.0	110.7
All groups	100.0	136.1

The Consumer Price Index does not measure the 'cost of living'. It measures price changes in a 'basket of goods' that represent much of a wage and salary earner's expenditure. The actual mode of living will vary from household to household just as standards of living vary considerably. However, it is the most accurate measure of inflation as meaning an upward trend in the general internal price structure of an economy. To be strictly correct though no one index can be regarded as the correct measure of inflation. That is why a number of indexes have been constructed such as indexes of building materials and materials used in the manufacturing industry.

20.17 Average Retail Prices of Selected Food Items: Hobart *(a) (b)* (Cents)

Item	*Unit*	*1979*	*1985*	*Percentage increase*
Groceries, etc. —				
Bread, ordinary white, sliced	680 g	57	93	63
Flour, self-raising	2 kg	110	168	53
Tea	250 g	80	157	96
Coffee, instant	150 g	270	407	51
Sugar	2 kg	85	140	65
Rice	1 kg	78	88	13
Breakfast cereal, corn based	500 g	82	154	88
Peaches, canned	825 g	76	130	71
Potatoes	1 kg	40	50	25
Onions	1 kg	53	94	77
Dairy produce, etc. —				
Butter	500 g	95	176	85
Margarine, table, poly-unsaturated	500 g	92	123	34
Eggs	1 doz (55 g)	139	194	40
Bacon, rashers, pre-pack	250 g	150	240	60
Milk, fresh, bottled, delivered	2—600 ml	49	92	88
Meat —				
Beef —				
Rump steak	1 kg	580	805	39
Silverside, corned	1 kg	380	538	42
Lamb —				
Leg	1 kg	333	392	18
Loin chops	1 kg	349	400	15
Pork, leg	1 kg	415	575	39

(*a*) The table units are not necessarily those for which the original price data were obtained; in such cases, prices have been calculated for the table unit.
(*b*) Prices are the averages of the recorded prices for the four quarters of each calendar year.

20.8 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Foreign Trade, Tasmania (5402.6), annual.

ABS Publications Produced by the Canberra Office:

Retail Sales of Goods (Excluding Motor Vehicles, Parts, Petrol, etc.), Australia (8501.0), monthly.

Retail Sales of Goods (Excluding Motor Vehicles, Parts, Petrol, etc.), Australia (8503.0), quarterly.

Exports, Australia (5404.0), monthly.

Imports, Australia (5406.0), monthly.

A Guide to the Consumer Price Index (6440.0).

Consumer Price Index (6401.0), quarterly.

Average Retail Prices of Selected Items, Eight Capital Cities (6403.0), quarterly.

Price Index of Materials Used in Building Other than House Building (6407.0), monthly.

Price Index of Materials Used in House Building (6408.0), monthly.

Price Index of Metallic Materials (6410.0), monthly.

Price Index of Materials Used in Manufacturing Industry (6411.0), monthly.

Price Index of Articles Produced by Manufacturing Industry (6412.0), monthly.

Other Publications:

Robson, Lloyd *A History of Tasmania*, Oxford University Press.

Statistical Returns of Van Diemen's Land.

Statistics of the State of Tasmania.

Marine Board of Hobart, *Annual Report* 1985.

Port of Launceston Authority, *Annual Report* 1984–85.

Port of Devonport Authority, *Annual Report* 1985.

The Marine Board of Burnie, *Annual Report* 1984–85.

TASMANIAN STATISICAL DIVISIONS

The State, for statistical purposes, is analysed by division which is basically a group of whole municipalities. The traditional Tasmanian statistical divisions, in use for over 50 years, were exposed to searching scrutiny in 1971 and the decision was taken to introduce a new structure, to be applied to statistics in respect of periods commencing on or after 1 July 1972.

History of Statistical Divisions

The groupings of administrative areas into divisions for statistical purposes can be found in annual volumes of the *Statistics of Tasmania* dating back to the nineteenth century. The administrative areas included: police districts, registration districts, electoral districts, and municipalities. The boundaries of these areas were subject to periodic changes. The *Local Government Act* 1906 provided a basis for the whole State coming under uniformly constituted local government and gradually the divisional grouping of administrative areas was confined, in official statistics, to munitipalities. As a result of this Act, fixed local government area (municipality) boundaries were delineated in 1907 by a commission specially set up for the purpose. These boundaries remained generally unchanged from 1907, although there have been numerous relatively minor boundary changes, to 1919 when the old municipalities of 'Hobart', 'Queenborough' and 'New Town' were combined to form the new municipality of 'Hobart'.

In 1985 the old municipalities of 'St Leonards', 'Lilydale', and 'Launceston' amalgamated to form the municipality of 'Launceston'.

In 1919, groupings of local government areas used were very similar to those still used in 1971; in some series Hobart, Launceston and Glenorchy were separately specified as components of an 'Urban Division' distinct fromt he region in which each was located.

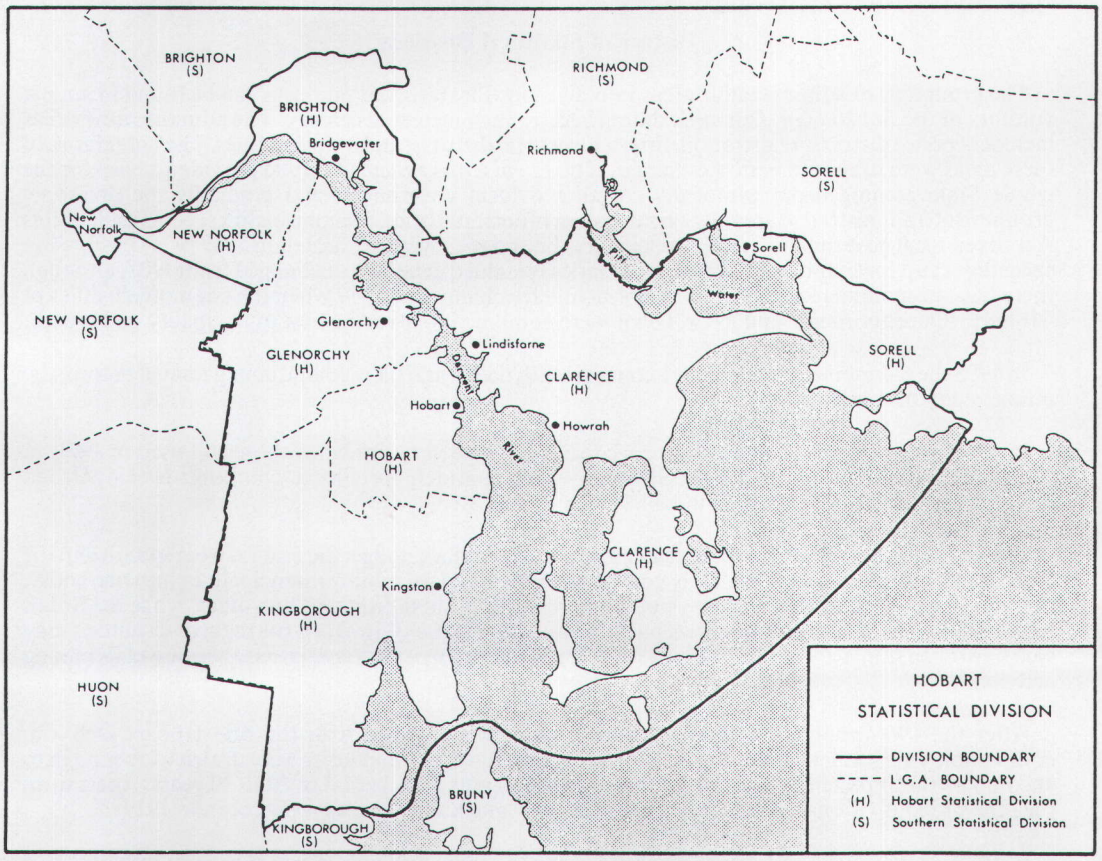
The basis for these 1919 groupings can only be inferred since no specific criteria were specified in the records. The Western Division clearly combined the 'west coast' mining municipalities into one entity; the Southern Division seemed to be based on orcharding, small fruit and hop areas; while the South Eastern Division was allied more with pastoral and grazing areas. In short, the main determinant may well have been similarity of rural activity (with the Western Division a special case because of its mining activity).

After the 1966 population census, a new division was formed with the title Hobart Division, comparable with similar capital city divisions in other States; its boundaries were drawn wide enough to encompass the expected expansions of the inner urban area for a period of 20 to 30 years. Apart from this, the broad divisional structure in 1971 was very much the same as it had been in 1919.

In 1972 a new statistical division structure, using the three principal urban centres of influence as a basis, was designed. The three urban centres and their areas of influence were: Hobart — South and South-East; Launceston — North and North-East; and Burnie–Devonport — North-West and West. The following divisional structure was then adopted; with Hobart as focus — Hobart and Southern Divisions; with Launceston as focus — Northern Division split into Tamar and North Eastern Subdivisions; and with Burnie–Devonport as focus — Mersey-Lyell Division split into North-Western and Western sub-divisions.

Hobart Division

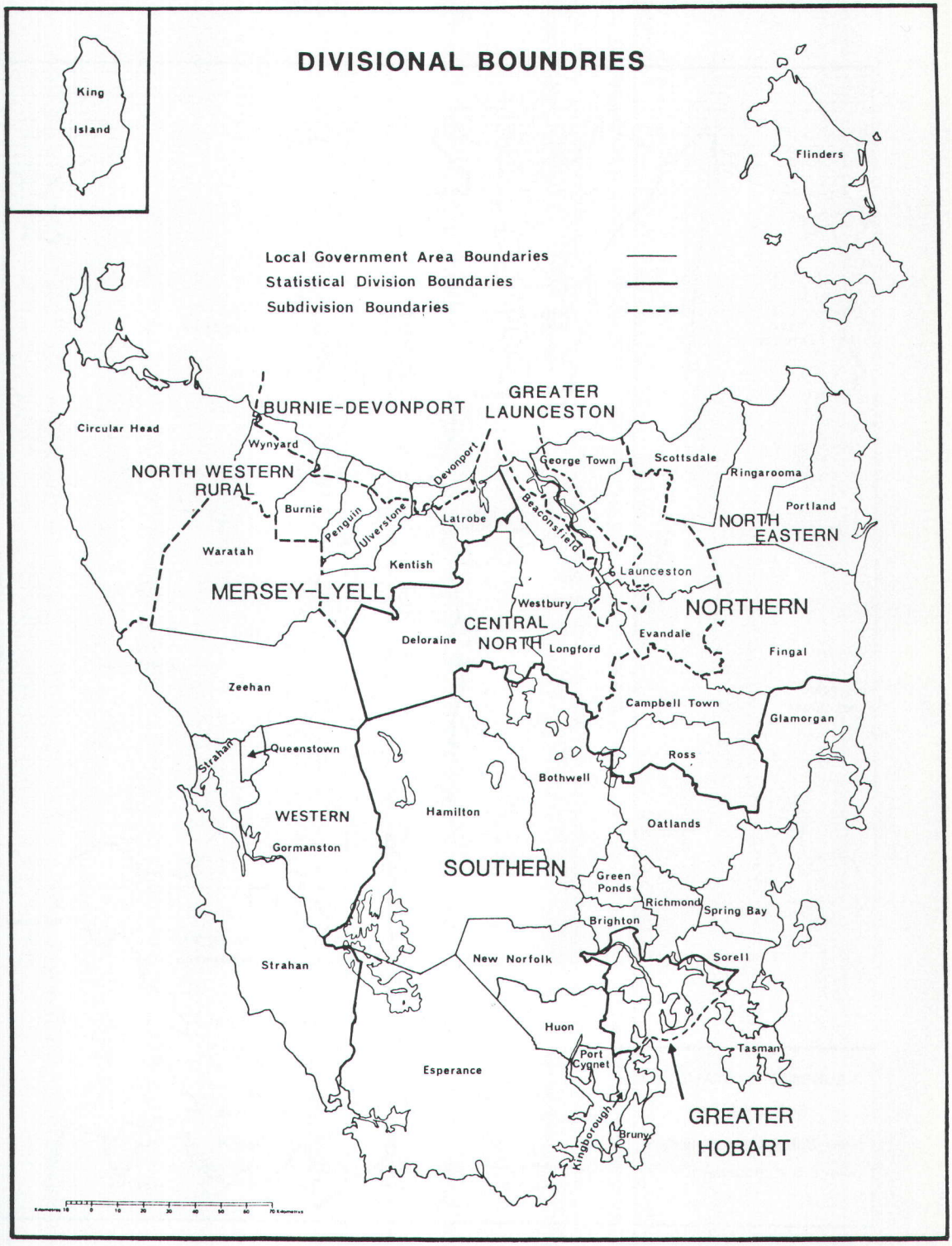
This Division comprises Hobart and Glenorchy Cities, the municipality of Clarence, and parts of four other municipalities: Brighton, Kingborough, New Norfolk, and Sorell. The Division is Tasmania's principal industrial region and the administrative focal point. The Hobart Division boundaries were drawn wide enough to contain the expected outward growth of the inner urban area for a period of 20 to 30 years.

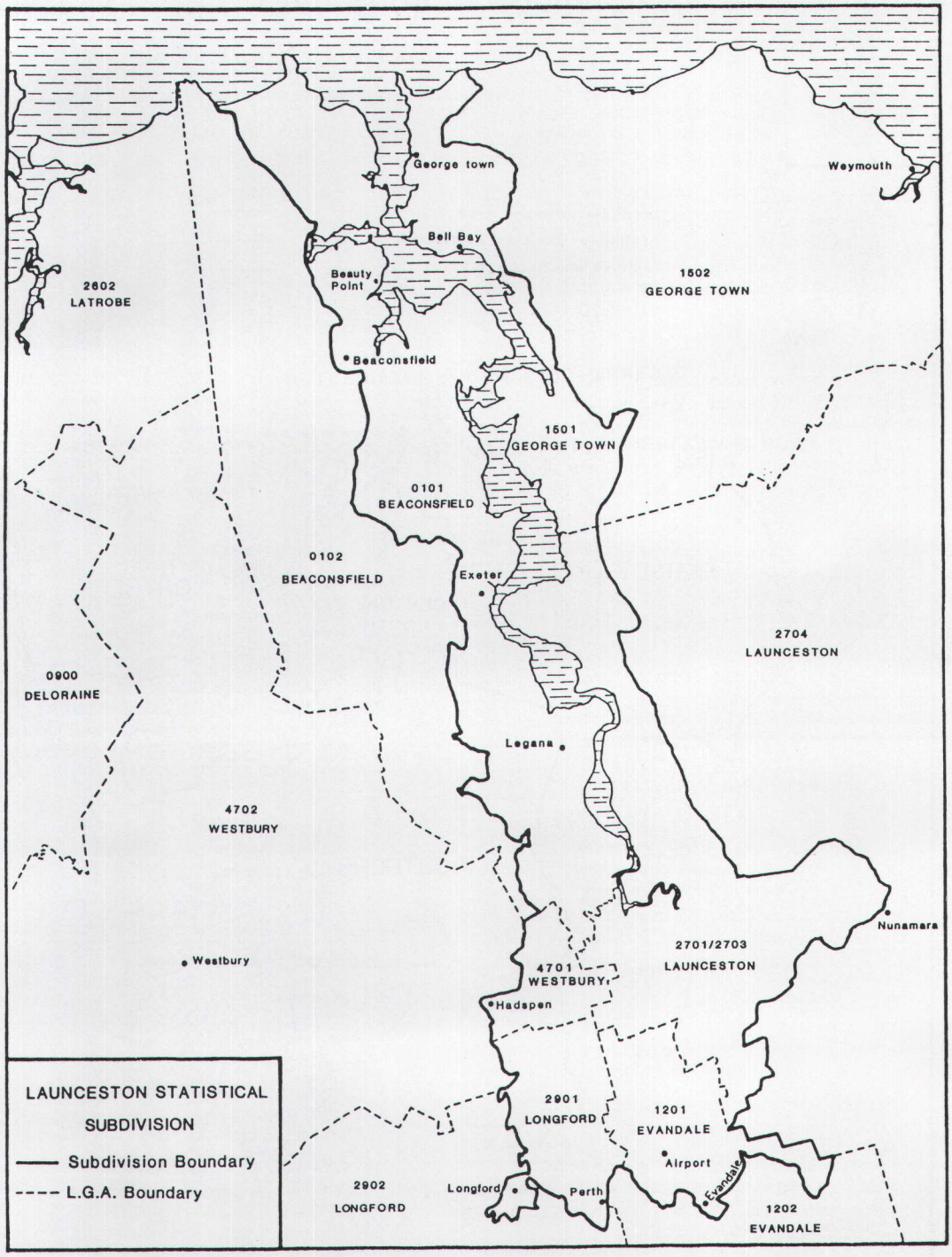


One important component of the Hobart Division is Urban Hobart, defined as the densely settled contiguous parts of the cities of Hobart and Glenorchy, and of the municipalities of Clarence and Kingborough. The boundaries of Urban Hobart and of the Hobart Division do not conform with borders defining local government areas.

Southern Division

Comprises the southern local government authority areas which have Hobart as their urban focus. Predominant activities include orcharding, sheep and cattle grazing, forestry and timber processing.


DIVISIONAL BOUNDRIES
King Island
Flinders
Local Government Area Boundaries
Statistical Division Boundaries
Subdivision Boundaries
BURNIE-DEVONPORT
GREATER LAUNCESTON
Circular Head
Wynyard
NORTH WESTERN RURAL
Devonport
George Town
Scottsdale
Ringarooma
Portland
Burnie
Penguin
Ulverstone
Latrobe
Beaconsfield
NORTH EASTERN
Waratah
Kentish
Launceston
MERSEY-LYELL
Westbury
NORTHERN
CENTRAL
Deloraine
NORTH
Longford
Evandale
Fingal
Zeehan
Campbell Town
Glamorgan
Queenstown
Strahan
Ross
Bothwell
WESTERN
Hamilton
Oatlands
Gormanston
SOUTHERN
Green Ponds
Richmond
Spring Bay
Brighton
Strahan
New Norfolk
Sorell
Huon
Port Cygnet
Tasman
Esperance
GREATER HOBART
Kingborough
Bruny


George town
Weymouth
Bell Bay
Beauty Point
2602 LATROBE
1502 GEORGE TOWN
Beaconsfield
1501 GEORGE TOWN
0101 BEACONSFIELD
0102 BEACONSFIELD
Exeter
2704 LAUNCESTON
0900 DELORAINE
Legana
4702 WESTBURY
Nunamara
Westbury
2701/2703 LAUNCESTON
4701 WESTBURY
Hadspen
LAUNCESTON STATISTICAL SUBDIVISION
Subdivision Boundary
L.G.A. Boundary
2901 LONGFORD
1201 EVANDALE
Airport
Evandale
2902 LONGFORD
Longford
Perth
1202 EVANDALE

Northern Division

The Northern Division is the region with Launceston as its urban focus.

(i) *Tamar Sub-division:* This is the region dominated by the Tamar Valley. In the centre of this area is Launcston and its suburbs (known as Urban Launceston). This Sub-division includes several major manufacturing industries, port facilities of the northern region and agricultural,pastoral, dairying and forestry industries.

Launceston Statistical District: A new boundary delineating the Launceston Statistical District was drawn for the purpose of presenting results of the 1976 Population Census. The boundary was drawn to contain the area of expected urban growth over the next two decades and includes the City of Launceston and parts of five other municipalities as shown in the previous map.

Urban Launceston is defined for statistical purposes as the City of Launceston plus the contiguous urban parts of the Evandale, Westbury and Beaconsfield municipalities.

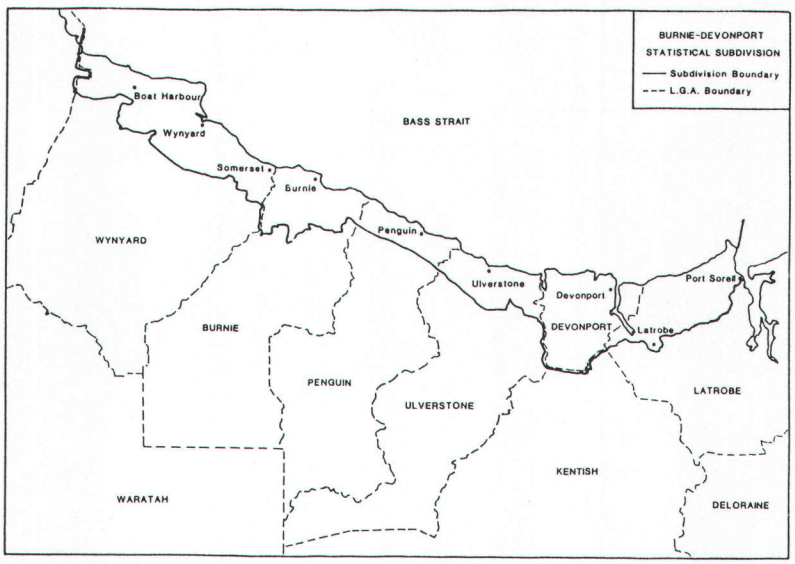
(ii) *North-Eastern Sub-division:* Comprises the outer seven municipalities of the Northern Division. Principal activities include agriculture, dairying, sheep and cattle grazing, forestry and some mining.

Mersey-Lyell Division

This division encompasses the north-west and western portions of the State. The region has a twin urban focus of Burnie–Devonport.

(i) *North-Western Sub-division:* Comprises the municipalities stretching along Bass Strait from Latrobe to Circular Head plus Kentish and King Island. The Sub-division includes sevearl major manufacturing industries and is a principal agricultural, pastoral, dairying and forestry area for the State.

Burnie–Devonport Statistical District: As with the Launceston Statistical District the Burnie–Devonport Statistical District was drawn to contain the area of expected urban growth over the next two decades. It includes the whole of the municipality of Devonport and parts of the municipalities of Wynyard, Burnie, Penguin, Ulverstone and Latrobe.



(ii) *Wetern Sub-division:* Contains Tasmania's western municipalities where mining activities predominate.

STATISTICAL SUMMARY

In the following pages, an historical summary of the more important statistics available that relate to Tasmania is shown. Only brief footnotes have been included and readers should refer to publications listed in 'references' at the end of each relevant chapter. Naturally, the range of statistics for early years is very limited. Also, it should be borne in mind that perfect comparability over long periods of time is difficult to attain due to changes in definitions, scope of statistical collections, etc. While major breaks in series are shown, minor changes to series are not indicated and the statistics should be interpreted with this in mind.

Generally, the first year shown on each page is the earliest for which any series on that page is available. Due to space constraints, earlier details for some series are given only for either every five or ten years. Items included have been arranged in chapter order.

(Chapter 5) **Local Government Finance, Tasmania**

Year	*Value of ratable property*			*Revenue Fund ordinary service and business undertakings*		*Loan Fund*			
	Land value (a) (b) (c)	*Total capital value (a) (b)*	*Assessed annual value*	*Revenue (d)*	*Expenditure (d)*	*Loan raisings*	*Expenditure*	*Total debt (b)*	*Annual interest liability*
	$ million	*$ million*	*$ million*	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*
1929–30	46.17	101.40	5.51	1 954	1 956	227	212	6 502	n.a.
1939–40	46.16	109.82	6.10	2 174	2 192	212	230	6 712	300
1949–50	50.73	134.70	9.02	3 694	3 696	1 400	1 423	7 219	267
1950–51	55.86	155.35	10.24	4 283	4 327	1 860	1 594	8 534	304
1951–52	63.43	187.66	11.43	5 357	5 351	2 554	2 558	10 453	372
1952–53	69.93	224.91	12.87	6 024	6 048	2 184	2 166	11 900	444
1953–54	74.31	252.69	13.84	6 641	6 506	2 418	1 758	13 600	533
1954–55	83.58	296.37	15.88	6 972	7 053	2 796	2 408	15 603	639
1955–56	93.84	345.27	15.56	6 386	6 596	2 367	2 730	(e) 15 389	654
1956–57	130.13	495.31	25.42	7 417	7 261	2 310	2 682	16 967	761
1957–58	140.55	553.90	28.23	7 998	7 904	4 024	3 237	20 192	944
1958–59	164.66	653.48	33.41	8 837	8 837	3 685	3 541	22 979	1 111
1959–60	179.03	739.35	37.31	9 781	9 762	5 232	4 671	27 144	1 337
1960–61	185.93	808.21	40.04	10 867	10 924	5 277	5 259	31 285	1 571
1961–62	193.52	870.08	42.89	12 097	11 779	6 159	5 658	36 181	(f) 1 515
1962–63	216.01	942.88	48.62	13 765	13 256	5 268	7 212	39 842	1 897
1963–64	271.63	1 075.09	57.51	14 792	14 654	5 823	7 431	44 063	2 061
1964–65	290.52	1 140.40	61.27	16 250	16 176	6 237	6 354	48 368	2 209
1965–66	328.50	1 202.22	68.54	17 395	17 085	6 512	8 342	52 844	2 442
1966–67	329.14	1 271.87	72.47	19 594	19 068	6 981	8 091	57 611	2 893
1967–68	351.66	1 350.44	86.35	21 235	20 858	8 183	9 364	62 821	3 186
1968–69	375.02	1 452.38	95.57	23 478	22 790	7 633	8 616	66 922	3 496
1969–70	412.71	1 571.96	102.98	25 914	24 816	6 793	7 972	71 854	3 858
1970–71	442.45	1 691.37	107.78	28 236	27 195	6 964	7 494	75 752	4 149
1971–72	455.06	1 768.07	114.86	31 505	30 985	7 326	8 504	79 907	4 534
1972–73	484.13	1 874.17	124.61	37 000	34 552	8 151	9 668	84 781	4 865
1973–74	512.73	1 995.91	147.41	40 376	38 381	8 574	8 803	89 766	5 298
1974–75	620.86	2 317.03	165.47	52 313	51 830	12 260	12 677	97 892	5 951
1975–76	696.81	2 570.15	185.36	68 345	65 118	15 870	19 368	109 655	7 071
1976–77	932.13	2 902.51	218.86	76 376	69 204	17 775	20 579	122 950	8 655
1977–78	r 1 155.61	3 531.99	260.11	82 607	77 476	18 595	23 135	136 366	10 283
1978–79	r 1 401.17	4 241.72	344.62	92 130	86 286	19 872	24 120	149 934	12 017
1979–80	r 1 865.19	5 678.18	397.69	112 077	113 171	34 949	n.a.	157 300	13 326
1980–81	r 2 092.20	6 448.32	435.46	121 769	116 239	51 337	n.a.	165 832	14 418
1981–82	r 2 308.99	7 055.27	480.36	137 432	137 549	65 152	n.a.	171 755	16 090
1982–83	r 2 597.54	7 701.97	r 524.66	r 161 945	r 161 078	76 402	n.a.	r 174 624	16 518
1983–84	2 781.48	8 177.92	589.70	185 765	180 764	84 653	n.a.	175 472	18 294
1984–85	2 985.07	8 788.26	666.97	195 654	187 626	96 420	n.a.	176 588	18 216

(*a*) State Government valuation. (*b*) At 30 June. (*c*) Prior to 1977–78 figures are 'unimproved capital value'.
(*d*) Excludes loans. (*e*) As from 1955–56, the loan debt of Hobart and Launceston Corporations for tramways has been excluded and treated as a direct liability of the Metropolitan Transport Trust. (*f*) From 1961–62 actual interest payments.

(Chapter 5) Gross and Net Loan Expenditure, Tasmania

Year	Gross expenditure	Net expenditure	Revenue deficit funded (a)	Net loan expenditure per head of population	Year	Gross expenditure	Net expenditure	Revenue deficit funded (a)	Net loan expenditure per head of population
	$'000	$'000	$'000	$		$'000	$'000	$'000	$
1900 to 1904–05 (b)	543	473	—	2.68	1969–70	49 411	45 069	—	116.67
1910–11 to					1970–71	52 079	47 393	—	121.75
1914–15 (b)	1 147	1 039	—	5.40	1971–72	73 037	66 268	4 350	169.22
1920–21	6 181	5 435	—	25.68	1972–73	76 813	67 243	2 378	170.67
1930–31	(c) 2 921	(c) 1 651	—	7.40	1973–74	73 947	64 603	3 805	162.60
1940–41	4 231	2 268	363	9.40	1974–75	90 060	76 056	7 282	189.15
1950–51	30 802	27 465	402	96.86	1975–76	98 818	81 369	—	200.32
					1976–77	126 223	110 085	9 399	265.26
1960–61	33 865	30 611	—	87.38	1977–78	123 459	104 732	—	250.80
1961–62	32 521	30 088	112	84.60	1978–79	122 451	99 074	1 250	235.44
1962–63	33 332	30 511	113	84.58	1979–80	121 805	92 214	—	217.69
1963–64	35 354	32 905	161	90.32					
1964–65	35 816	33 352	—	90.65	1980–81	114 790	90 579	6 057	212.03
1965–66	39 411	36 573	—	98.46	1981–82	104 436	82 606	7 133	192.20
1966–67	40 161	36 636	306	98.15	1982–83	131 845	94 379	34 397	218.17
1967–68	46 054	42 128	1 132	111.62	1983–84	111 074	84 886	4 000	194.11
1968–69	44 458	40 164	1 762	105.02	1984–85	135 908	90 828	5 644	205.45

(a) These amounts are included in both Gross and Net Loan Expenditure. The figures shown are a complete record of funded deficits since 1900.
(b) Annual average for the five-yearly period shown.
(c) Includes $1 233 000, the amount re-appropriated to provide for certain deferred revenue charges.

(Chapter 5) Aggregate Net Loan Expenditure and Public Debt, Tasmania

Year	Aggregate net loan expenditure to end of year — Purpose: Railways and transport	Hydro-electric works	Roads, bridges, harbours	School buildings and University	Housing advances and construction	Other	Total	Public debt at end of year (a) (at mint par of exchange)	Annual interest liability at current rates of exchange: Amount	Average rate
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	%
1890	6 508	—	3 354	238	—	2 282	12 382	12 866	n.a.	n.a.
1900	7 820	—	5 352	334	—	2 986	16 492	17 022	n.a.	n.a.
1910–11	8 866	—	7 258	488	—	5 034	21 646	22 156	n.a.	n.a.
1920–21	11 702	3 994	10 390	848	206	12 302	39 442	37 552	n.a.	n.a.
1930–31	13 866	7 692	13 540	1 312	412	16 568	53 390	46 778	n.a.	n.a.
1940–41	14 520	13 018	14 412	1 986	902	19 392	64 230	56 332	n.a.	n.a.
1950–51	20 958	40 448	16 214	4 694	9 946	33 468	125 728	114 066	n.a.	3.1977
1960–61	31 126	181 578	35 076	27 266	29 536	87 422	392 004	354 558	n.a.	4.3845
1961–62	31 418	195 206	39 144	30 450	29 190	96 684	422 092	379 252	17 064	4.3948
1962–63	31 296	208 706	42 942	34 048	28 990	106 621	452 603	404 594	19 523	4.4585
1963–64	34 410	222 905	47 704	38 342	28 577	113 570	485 508	432 311	19 790	4.4634
1964–65	34 984	239 419	51 171	42 395	28 244	122 653	518 866	462 302	21 706	4.5890
1965–66	35 789	255 919	55 593	46 832	27 970	133 325	555 428	491 658	23 987	4.7693
1966–67	36 088	273 919	57 486	50 858	27 692	146 021	592 064	524 918	25 940	4.8432
1967–68	36 910	293 919	58 774	54 964	27 217	162 408	634 192	560 893	27 777	4.8879
1968–69	37 170	314 644	59 563	59 387	27 230	176 586	674 580	599 736	30 040	4.9517
1969–70	40 503	337 769	60 686	64 853	26 469	189 370	719 650	637 407	32 939	5.1163
1970–71	42 169	362 269	61 706	70 544	26 104	204 250	767 042	665 397	36 203	5.3928
1971–72	47 199	388 269	62 636	78 952	31 497	224 757	833 310	705 271	39 202	5.5220
1972–73	58 643	410 629	63 176	90 753	36 837	240 516	900 554	749 583	41 620	5.5300
1973–74	67 609	433 629	63 886	102 567	36 228	261 248	965 167	787 618	45 922	5.8300
1974–75	81 033	456 854	64 504	114 219	35 771	288 832	1 041 213	833 862	49 005	6.4100
1975–76 (b)	15 186	486 554	65 559	132 917	37 475	316 692	1 054 383	753 797	53 748	7.1300
1976–77	13 714	517 554	71 407	156 939	40 694	370 933	1 164 561	811 012	60 437	7.4500
1977–78	14 730	540 554	75 526	178 496	42 558	417 616	1 269 481	870 097	68 233	7.8400
1978–79	15 466	557 204	80 526	197 373	48 754	469 324	1 368 648	922 559	73 604	7.9783
1979–80	16 033	569 879	85 338	215 364	58 922	515 499	1 461 035	969 948	80 205	r 8.2690
1980–81	16 136	581 179	89 618	230 191	67 759	568 297	1 553 180	1 020 804	91 494	r 8.9630
1981–82	16 239	604 979	93 156	236 320	78 113	609 374	1 638 181	1 071 606	105 333	r 9.8295
1982–83	17 207	589 979	98 054	252 777	82 788	695 466	1 736 271	1 114 397	116 405	r 10.4456
1983–84	19 398	589 979	102 883	270 511	82 122	760 135	1 825 028	1 154 510	124 349	r 10.7707
1984–85	28 988	569 979	119 593	290 913	81 418	831 039	1 921 930	1 200 687	136 617	11.1284

(a) Expenditure under Commonwealth and State Housing Agreements is excluded from Public Debt.
(b) The Tasmanian Government Railways were taken over by the Australian National Railways Commission from 1 July 1975.

(Chapter 5) Consolidated Revenue Fund: Revenue and Expenditure, Tasmania (*a*) ($'000)

Year	Revenue	Expenditure	Budget result	Aggregate net deficit at end of year
1891	1 889	1 827	+ 63	497
1901	1 652	1 741	- 89	487
1910–11	1 940	2 034	- 94	490
1911–12	2 169	2 129	+ 40	450
1912–13 (*b*)	2 413	2 192	+ 221	229
1913–14	2 476	2 470	+ 6	223
1914–15	2 488	2 768	- 280	503
1915–16	2 753	2 681	+ 72	432
1916–17	2 739	2 826	- 87	519
1917–18	3 006	2 919	+ 87	432
1918–19	3 164	3 289	- 125	557
1919–20	3 630	3 657	- 27	584
1929–30	5 379	5 430	- 51	1 451
1930–31	5 219	5 709	- 490	1 942
1931–32	4 771	5 314	- 543	2 485
1932–33	5 044	5 155	- 110	2 596
1933–34	5 396	5 492	- 95	2 691
1934–35	5 744	5 983	- 238	2 930
1935–36	6 235	6 495	- 259	3 189
1936–37	6 977	6 887	+ 90	3 099
1937–38	7 280	7 266	+ 14	3 086
1938–39	7 230	7 281	- 52	3 138
1939–40	6 111	6 106	+ 5	3 133
1940–41	5 843	6 206	- 363	3 496
1941–42	6 717	6 714	+ 3	3 493
1942–43	6 581	6 800	- 219	3 712
1943–44	6 997	6 937	+ 60	3 651
1944–45	7 313	7 351	- 38	3 690
1945–46	7 867	8 068	- 201	3 891
1946–47	9 014	9 147	-132	4 023
1947–48	10 156	10 204	- 48	4 071
1948–49	11 288	11 691	- 402	4 473
1949–50	13 882	14 165	- 283	4 756
1950–51	15 831	16 324	- 493	5 249
1951–52	20 386	21 490	- 1 104	6 353
1952–53	22 922	23 526	- 604	6 957
1953–54	26 502	26 840	- 338	7 294
1954–55	29 877	30 614	- 737	8 032
1955–56	34 389	35 792	- 1 403	9 434
1956–57	37 889	39 543	- 1 655	11 089
1957–58	43 210	43 228	- 18	11 107
1958–59	45 520	45 518	+ 2	11 105
1959–60	50 542	59 657	- 114	11 219
1960–61	54 054	54 167	- 113	11 332
1961–62	61 191	61 352	- 161	11 493
1962–63	64 018	64 019	- 1	11 493
1963–64	69 167	69 021	+ 147	11 346
1964–65	76 012	76 465	- 452	11 799
1965–66	84 453	85 585	- 1 132	12 931
1966–67	91 486	93 248	- 1 762	14 693
1967–68	100 463	102 413	- 1 951	16 644
1968–69	109 526	111 540	- 2 015	18 659
1969–70	120 619	121 004	- 385	19 044
1970–71	135 829	138 207	- 2 378	21 422
1971–72	156 432	160 237	- 3 805	25 226
1972–73	181 866	185 998	- 4 132	29 358
1973–74	206 947	210 097	- 3 150	32 508
1974–75	268 522	282 065	- 13 544	46 052
1975–76	322 091	317 947	+ 4 144	41 908
1976–77	396 617	395 033	+ 1 583	41 908
1977–78	444 263	450 706	- 6 443	48 351
1978–79	495 822	492 961	+ 2 861	45 490
1979–80	560 192	563 917	- 3 725	49 214
1980–81	620 307	627 441	- 7 133	56 348
1981–82	683 231	717 628	- 34 397	90 745
1982–83	764 990	772 735	- 7 745	98 490
1983–84	853 107	855 006	- 1 899	100 389
1984–85	953 209	952 922	+ 286	100 103

(*a*) From 1947–48 until 1971–72, the items 'Revenue' and 'Budget result' are shown adjusted according to the Special Grant Adjustment.
(*b*) System of annual Commonwealth Special Grants introduced.

(Chapter 6) Summary of Population at Census Dates, Tasmania *(a) (b)*

Particulars		*Census date*								
		April 1921	*June 1933*	*June 1947*	*June 1954*	*June 1961*	*June 1966*	*June 1971*	*June 1976*	*June 1981*
Population —										
Males	no.	107 743	115 097	129 244	157 129	177 628	187 390	196 442	201 512	208 641
Females	no.	106 037	112 502	127 834	151 623	172 712	184 045	193 971	201 356	210 316
Persons	no.	213 780	227 599	257 078	308 752	350 340	371 435	390 413	402 868	418 957
Masculinity (males per 100 females)	no.	102	102	101	104	103	102	101	100	101
Average annual increase since previous Census —										
Males	%	1.0	0.6	0.8	2.8	1.8	1.1	1.0	0.5	0.7
Females	%	1.3	0.5	0.9	2.5	1.9	1.3	1.0	0.8	0.9
Persons	%	1.1	0.5	0.9	2.7	1.8	1.2	1.0	0.6	0.8
Age distribution of population —										
Under 16 years	no.	77 654	73 030	77 483	102 171	123 331	127 379	129 307	124 267	116 942
	%	36.3	32.1	30.1	33.1	35.2	34.3	33.1	30.8	28.0
16 years and under 65 years	no.	126 055	138 515	159 925	183 230	200 001	214 981	230 069	243 885	261 151
	%	59.0	60.9	62.2	59.3	57.1	57.9	58.9	60.5	62.3
65 years and over	no.	10 071	16 054	19 670	23 351	27 008	29 075	31 037	34 719	42 540
	%	4.7	7.0	7.7	7.6	7.7	7.8	7.9	8.6	9.9
Religions of the population —										
Church of England	no.	112 222	105 228	123 158	147 407	159 101	166 023	169 089	158 748	151 207
Methodist	no.	27 171	26 470	33 358	38 236	42 236	43 084	42 173	37 107	19 906
Catholic *(c)*	no.	35 465	33 189	39 844	53 042	63 993	71 089	77 250	75 092	78 143
Presbyterian	no.	14 796	13 194	12 644	15 607	16 757	17 498	17 281	14 899	11 575
Baptist	no.	5 332	4 666	5 374	6 293	7 227	7 759	8 039	7 940	7 965
Congregational	no.	4 543	3 963	4 007	4 425	4 193	4 530	4 134	3 266	1 790
Churches of Christ	no.	1 935	1 892	2 039	2 267	2 507	2 701	2 500	2 188	2 110
Protestant (undefined)	no.	2 271	1 979	1 661	2 157	1 975	1 924	4 243	3 455	5 217
Salvation Army	no.	1 357	1 142	1 612	1 815	2 316	2 661	3 176	2 880	3 202
Uniting Church *(d)*	no.	—	—	—	—	—	—	—	—	17 668
Other Christian	no.	3 597	3 530	4 518	8 238	11 229	13 058	16 510	18 667	18 631
Total Christian	no.	208 689	195 253	228 215	279 487	311 534	330 327	344 395	324 242	317 414
Non-Christian	no.	245	87	173	256	268	485	561	779	1 263
Indefinite	no.	520	373	797	796	1 766	2 275	993	2 223	11 162
No religion	no.	399	159	506	516	775	2 020	44 464	27 624	36 222
No reply	no.	3 927	31 727	27 387	27 697	35 997	36 328		47 998	52 896
Conjugal condition of the population —										
Never married —										
Under 15 years of age	no.	73 444	68 590	73 371	97 452	117 299	120 164	121 323	115 665	109 604
15 years of age and over	no.	54 297	61 009	53 912	54 890	58 039	64 365	65 213	70 229	80 067
Total never married	no.	127 741	129 599	127 283	152 342	175 338	184 529	186 536	185 894	189 671
Married	no.	76 482	86 014	114 625	139 801	157 110	167 421	181 855	185 056	189 442
Widowed	no.	8 874	10 954	12 933	14 030	15 563	16 959	18 621	19 340	21 362
Divorced	no.	118	416	1 319	2 002	2 329	2 526	3 401	5 868	10 855
Not stated	no.	565	616	918	577	*(e)*	*(e)*	*(e)*	*(e)*	*(e)*
Birthplaces of the population —										
Australia	no.	196 268	215 213	247 379	282 491	317 478	335 582	350 150	361 866	371 624
New Zealand	no.	1 356	1 201	1 030	1 112	1 128	1 237	1 550	1 801	2 421
United Kingdom and Republic of Ireland	no.	12 734	9 588	7 123	14 113	16 741	19 101	22 513	22 913	23 289
Netherlands	no.	9	11	13	2 340	3 556	3 367	3 183	2 916	3 008
Germany	no.	389	238	171	1 794	2 223	2 016	2 009	1 886	1 936
Italy	no.	37	92	64	974	1 536	1 448	1 485	1 423	1 343
Other European	no.	512	334	325	4 535	5 789	6 033	6 184	5 970	5 530
Other birthplace	no.	2 475	922	973	1 393	1 889	2 651	3 339	4 095	9 806

(a) Full-blood aboriginals excluded from census data prior to 1966.
(b) As recorded. Not adjusted for under-enumeration.
(c) Includes Catholic and Roman Catholic.
(d) The Uniting Church was formed in 1978 from members of the Congregational, Methodist and Presbyterian churches.
(e) Conjugal condition was allocated prior to tabulation in all instances where this information was not stated.

(Chapter 6) Population, Arrivals and Departures, Tasmania

Year	Estimated population (a)							Arrivals (c)	Departures (c)	Annual rate of increase of population (d)
	Total at 30 June	Mean: year ended 30 June	Mean: year ended 31 Dec.	Totals at 31 December						
				Persons	Males	Females	Masculinity (b)			
	no.	no.	no.	no.	no.	no.		no.	no.	per cent
1820	n.a.	n.a.	n.a.	5 400	n.a.	n.a.	n.a.	n.a.	n.a.	8.00
1825	n.a.	n.a.	n.a.	14 192	10 979	3 213	342	n.a.	n.a.	21.26
1830	n.a.	n.a.	n.a.	24 279	18 108	6 171	293	n.a.	n.a.	11.35
1835	n.a.	n.a.	n.a.	40 172	28 749	11 423	252	n.a.	n.a.	10.59
1840	n.a.	n.a.	n.a.	45 999	32 040	13 959	230	n.a.	n.a.	2.75
1845	n.a.	n.a.	n.a.	64 291	43 921	20 370	216	n.a.	n.a.	6.91
1850	n.a.	n.a.	n.a.	68 870	44 229	24 641	179	n.a.	n.a.	1.37
1855	n.a.	n.a.	n.a.	69 962	38 680	31 282	124	n.a.	n.a.	0.32
1860	n.a.	n.a.	88 752	89 821	49 653	40 168	124	3 432	2 782	5.12
1865	n.a.	n.a.	93 111	93 967	50 549	43 418	116	3 597	3 691	0.90
1870 (e)	n.a.	n.a.	100 038	100 886	53 517	47 369	113	5 982	5 936	1.44
1875	n.a.	n.a.	104 000	103 739	54 678	49 061	111	6 535	8 083	0.55
1880	n.a.	n.a.	113 648	114 790	60 568	54 222	112	10 411	10 034	2.02
1885	n.a.	n.a.	127 763	128 860	67 712	61 148	111	14 822	15 228	2.33
1890	n.a.	n.a.	143 224	144 787	76 453	68 334	112	29 517	29 086	2.38
1895	n.a.	n.a.	153 701	154 895	80 485	74 410	108	18 767	19 357	1.35
1900	n.a.	n.a.	172 631	172 900	89 763	83 137	108	23 056	25 479	2.21
1905	183 351	183 834	184 478	186 385	95 947	90 438	106	31 116	33 311	1.52
1910	189 807	190 792	191 005	193 803	98 866	94 937	104	35 377	38 159	0.79
1915	195 370	196 320	196 238	197 536	98 653	98 883	100	39 767	44 764	0.38
1920	209 425	208 599	210 350	212 752	107 259	105 493	102	34 829	35 648	1.37
1925	213 991	215 997	215 552	219 364	110 172	109 192	101	40 227	43 757	0.70
1930	219 983	219 269	220 933	225 297	113 505	111 792	102	40 291	41 110	0.48
1935	228 988	229 339	229 867	233 423	118 124	115 299	102	42 470	42 912	0.63
1940	240 191	240 023	241 134	244 002	123 650	120 352	103	(f) 51 672	(f) 53 644	0.31
1945	248 633	246 971	248 596	250 280	125 854	124 426	101	n.a.	n.a.	1.37
1946	251 998	250 309	252 192	254 570	128 007	126 563	101	(g) 24	(f) 159	1.71
1947 (e)	257 078	254 553	257 636	267 936	135 195	132 741	102	(f) 49 920	(f) 40 833	5.25
1948	261 206	261 202	263 445	273 401	138 843	134 558	103	112 666	110 490	2.04
1949	267 062	266 518	270 327	281 343	143 433	137 910	104	117 614	113 232	2.91
1950	275 902	274 493	278 785	290 333	147 103	143 230	103	127 709	122 333	3.20
1951	286 193	283 526	288 294	301 787	153 721	148 066	104	137 341	129 514	3.95
1952	296 299	293 340	298 361	309 558	157 702	151 856	104	130 583	126 979	2.57
1953	304 080	302 529	306 318	316 465	161 305	155 160	104	127 484	125 812	2.23
1954 (e)	308 752	309 416	311 055	319 218	162 393	156 825	104	126 976	128 424	0.87
1955	314 092	312 694	315 565	324 919	165 356	159 563	104	137 834	137 144	1.79
1956	318 470	318 309	321 039	331 340	168 695	162 645	103	143 104	141 686	1.98
1957	326 130	324 666	328 435	338 807	172 186	166 621	103	143 601	141 310	2.25
1958	333 066	332 046	335 382	343 898	174 465	169 433	103	141 814	141 995	1.50
1959	339 376	338 628	341 423	351 349	178 109	173 240	103	162 761	160 569	2.17
1960	343 910	344 111	346 913	355 969	180 511	175 458	103	182 537	183 513	1.31
1961 (e)	350 340	350 077	353 623	353 258	178 864	174 394	103	186 423	184 165	0.76
1962	355 668	353 175	355 682	358 087	181 085	177 002	102	185 268	186 023	1.37
1963	360 727	358 180	360 590	362 799	183 330	179 469	102	198 443	199 918	1.32
1964	364 311	362 758	364 554	366 508	185 051	181 457	102	219 930	223 380	1.02
1965	367 905	366 366	367 970	369 608	186 483	183 125	102	248 964	249 617	0.85
1966 (e)	371 436	369 600	371 483	373 309	188 180	185 129	102	257 463	256 068	1.00
1967	375 244	373 321	375 397	377 841	190 369	187 472	102	270 934	271 812	1.21
1968	379 649	377 582	379 916	383 055	192 871	190 184	101	276 798	276 856	1.38
1969	384 893	382 710	385 079	386 998	194 788	192 210	101	296 186	297 069	1.03
1970	387 720	386 665	388 180	390 253	196 363	193 890	101	320 867	323 449	0.84
1971 (e)	398 100	(g) n.a.	(g) n.a.	399 500	200 600	198 900	100	340 163	340 642	(g) n.a.
1972	400 300	399 400	400 500	401 900	201 600	200 300	100	356 561	355 224	0.60
1973	403 100	401 800	403 200	404 600	202 800	201 800	100	450 707	448 556	0.67
1974	406 200	404 600	406 300	408 800	204 600	204 200	100	508 449	502 488	1.04
1975	410 100	408 300	410 000	411 500	205 900	205 600	100	510 639	514 278	0.66
1976 (e)	412 300	411 300	412 400	413 700	206 900	206 800	100	509 356	507 384	0.53
1977	415 000	413 700	415 100	416 500	208 300	208 300	100	538 665	530 535	0.68
1978	417 600	416 500	417 800	419 100	209 600	209 600	100	557 275	559 293	0.62
1979	420 800	419 200	420 700	422 200	210 700	211 600	100	576 050	574 790	0.74
1980	423 600	422 200	423 600	425 200	211 600	213 600	99	591 152	592 049	0.71
1981 (e)	427 200	425 300	427 100	428 200	212 900	215 300	99	591 699	593 780	0.70
1982	429 800	428 500	429 700	430 800	214 100	216 700	99	583 770	588 829	0.61
1983	432 600	430 900	432 600	r 434 800	r 216 000	r 218 800	99	563 666	563 554	r 0.93
1984	437 400	434 800	437 200	439 600	218 200	221 400	99	579 866	578 061	1.10
1985	p 442 100	439 600	441 900	444 200	220 500	223 700	99	628 241	632 203	1.00

(a) Prior to 1966 excludes Aboriginals.
(b) Number of males per 100 females.
(c) Series of recorded interstate arrivals and departures prepared by State Department of Tourism replaces ABS series from 1972. Includes movement to and from New Zealand from 1980.
(d) The rate of increase during the previous 12 months or, in the years prior to 1936, the average (compound) rate of increase during the previous five years.
(e) Census year.
(f) Excludes troop movements.
(g) Not available due to change in series.

(Chapter 6) Births, Deaths, Marriages and Divorces, Tasmania

Year	Number				Rate per 1 000 of mean population			Deaths under one year of age	
	Births	Deaths	Marriages	Divorces	Births	Deaths	Marriages	Number	Rate per 1 000 live births
1830	460	270	163	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1840	404	501	457	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1845	1 506	697	658	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1850	2 025	1 070	923	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1855	2 948	1 692	1 257	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1860	3 238	1 749	689	n.a.	36.48	19.71	7.76	n.a.	n.a.
1865	3 069	1 263	591	n.a.	32.96	13.56	6.35	n.a.	n.a.
1870	3 054	1 404	670	n.a.	30.53	14.03	6.70	298	97.6
1875	3 105	2 079	689	n.a.	29.86	19.99	6.83	407	131.1
1880	3 739	1 832	840	n.a.	32.90	16.12	7.39	420	112.3
1885	4 637	2 036	1 054	n.a.	36.29	15.94	8.25	522	112.6
1890	4 813	2 118	954	n.a.	33.60	14.79	6.66	508	105.6
1895	4 790	1 811	846	5	31.16	11.78	5.50	391	81.6
1900	4 864	1 903	1 332	4	28.18	11.02	7.72	389	80.0
1905	5 257	1 844	1 365	2	28.50	10.00	7.40	424	80.7
1910	5 586	2 120	1 493	6	29.25	11.10	7.82	568	101.7
1915	5 845	2 015	1 600	7	29.79	10.27	8.15	423	72.4
1920	5 740	2 036	1 999	18	27.29	9.68	9.50	376	65.5
1925	5 218	1 996	1 504	37	24.21	9.26	6.98	288	55.2
1930	4 786	1 948	1 450	42	21.66	8.82	6.56	242	50.6
1935	4 456	2 353	1 875	87	19.39	10.24	8.16	231	51.8
1936	4 581	2 387	2 073	62	19.79	10.31	8.96	227	49.6
1937	4 841	2 225	2 042	30	20.65	9.49	8.71	202	41.7
1938	4 907	2 288	2 082	109	20.76	9.68	8.81	195	39.7
1939	5 004	2 426	2 264	80	20.95	10.16	9.48	203	40.6
1940	4 994	2 387	2 476	83	20.71	9.90	10.27	176	35.2
1941	5 206	2 575	2 150	84	21.66	10.71	8.94	255	49.0
1942	5 305	2 430	2 431	83	22.00	10.08	10.08	255	42.4
1943	5 597	2 527	2 102	89	23.05	10.41	8.66	227	40.6
1944	5 200	2 494	1 935	115	21.17	10.15	7.88	199	38.3
1945	5 785	2 413	1 868	172	23.27	9.71	7.51	159	27.5
1946	6 847	2 549	2 650	219	27.15	10.11	10.51	207	30.2
1947	7 140	2 363	2 584	210	27.71	9.17	10.03	195	27.3
1948	6 979	2 528	2 428	185	26.49	9.60	9.22	193	27.7
1949	7 110	2 389	2 422	266	26.30	8.84	8.96	170	23.9
1950	7 242	2 466	2 560	152	25.96	8.85	9.18	172	23.8
1951	7 357	2 567	2 607	194	25.52	8.93	9.04	196	26.6
1952	7 916	2 579	2 553	217	26.53	8.64	8.56	172	21.7
1953	7 736	2 551	2 424	210	25.25	8.33	7.91	177	22.9
1954	7 770	2 696	2 512	238	24.98	8.67	8.08	186	23.9
1955	8 089	2 489	2 600	233	25.63	7.89	8.24	189	23.4
1956	8 104	2 513	2 601	197	25.24	7.83	8.10	170	21.0
1957	8 435	2 670	2 507	180	25.68	8.13	7.63	170	20.2
1958	8 568	2 708	2 475	176	25.55	8.07	7.38	167	19.5
1959	8 625	2 780	2 567	222	25.26	8.14	7.52	202	23.4
1960	8 853	2 670	2 713	210	25.52	7.70	7.82	169	19.1
1961	8 892	2 789	2 677	286	25.40	7.89	7.57	151	16.8
1962	8 894	2 870	2 485	249	25.01	8.07	6.99	184	20.7
1963	8 530	2 818	2 579	261	23.66	7.82	7.15	153	17.9
1964	8 252	3 174	2 869	230	22.64	8.71	7.87	166	20.1
1965	7 535	3 043	2 888	280	20.48	8.27	7.85	125	16.6
1966	7 401	3 159	2 946	319	19.92	8.50	7.93	108	14.6
1967	7 547	3 228	3 213	248	20.10	8.60	8.56	130	17.2
1968	8 317	3 284	3 426	303	21.89	8.64	9.02	143	17.2
1969	8 445	3 309	3 532	331	21.93	8.59	9.17	139	16.5
1970	8 185	3 174	3 535	426	21.09	8.16	9.11	116	14.2
1971	8 321	3 295	3 578	432	21.32	8.44	9.17	114	13.7
1972	7 824	3 227	3 426	446	19.94	8.22	8.73	127	16.2
1973	7 326	3 347	3 395	444	18.51	8.46	8.58	137	18.7
1974	7 398	3 484	3 567	536	18.52	8.72	8.93	123	16.6
1975	6 982	3 339	3 242	591	17.26	8.26	8.02	128	18.3
1976	6 702	3 389	3 477	1 761	16.44	8.32	8.53	77	11.5
1977	6 735	3 269	3 166	1 134	16.40	7.96	7.71	99	14.7
1978	6 788	3 271	3 148	1 132	16.41	8.00	7.61	97	14.3
1979	6 757	3 167	3 245	1 167	16.17	7.58	7.79	95	14.1
1980	6 735	3 392	3 433	1 285	15.90	7.80	8.20	79	11.7
1981	7 188	3 320	3 515	1 139	16.83	7.77	8.23	86	12.0
1982	7 002	3 432	3 576	1 391	16.36	7.99	8.32	55	7.9
1983	7 028	3 311	3 644	1 359	16.25	7.65	8.42	74	10.5
1984	7 098	3 549	3 704	1 185	16.24	8.12	8.47	81	11.4
1985	7 215	3 658	3 520	1 169	16.33	8.28	7.97	86	11.9

(Chapter 7) Employment: Unemployment: Wage Rates and Earnings, Tasmania

Year	Employed persons, labour force survey (a)	Unemployment: Labour force survey (a)	Unemployment: Persons receiving unemployment benefits (b)	Prescribed weekly wage rates, adult males, Hobart at 31 December: Basic wage (c)	Prescribed weekly wage rates, adult males, Hobart at 31 December: Minimum wage (d)	Average weekly earnings, all male employees for June qtr.: Amount (e)	Average weekly earnings, all male employees for June qtr.: Increase (f)
	('000)	('000)	no.	$	$	$	per cent
1939			..	7.70	..	n.a.	n.a.
1940			..	8.10	..	n.a.	n.a.
1941			..	8.50	..	n.a.	n.a.
1942			..	9.20	..	9.60	n.a.
1943			..	9.50	..	10.40	8.3
1944			..	9.40	..	10.60	1.9
1945			..	9.40	..	10.50	-1.0
1946			83	10.30	..	10.80	2.9
1947			44	10.70	..	12.00	11.1
1948			28	11.80	..	14.00	16.7
1949			32	12.80	..	15.60	11.4
1950			32	16.00	..	18.00	15.4
1951			10	19.90	..	22.10	22.8
1952	n.a.	n.a.	104	23.00	..	27.10	22.6
1953			323	24.20	..	28.80	6.3
1954			109	24.20	..	30.60	6.3
1955			52	24.20	..	33.60	9.8
1956			71	25.20	..	35.30	5.1
1957			410	26.20	..	36.60	3.7
1958			639	26.70	..	37.50	2.5
1959			670	28.20	..	37.60	0.3
1960			522	28.20	..	41.50	10.4
1961			1 416	29.40	..	41.70	0.5
1962			1 778	29.40	..	44.60	7.0
1963			1 777	29.40	..	45.10	1.1
1964			1 399	31.40	..	46.50	3.1
1965			946	31.40	..	49.20	5.8
1966	144.0	2.8	457	33.40	..	51.50	4.7
1967	148.3	3.0	546	34.40	38.15	55.80	8.3
1968	155.1	2.2	635	35.75	40.45	58.50	4.8
1969	153.7	3.3	600	36.80	43.00	63.10	7.9
1970	155.9	3.3	437	36.80	43.00	68.40	8.4
1971	157.4	2.9	873	39.00	47.00	76.70	12.1
1972	157.1	3.8	1 697	41.00	51.70	83.20	8.5
1973	161.6	3.0	2 330	43.50	60.70	93.60	12.5
1974	165.9	3.9	1 769	46.00	68.70	109.60	17.1
1975	165.0	7.4	4 439	50.00	83.50	138.50	26.4
1976	164.2	8.1	7 228	62.90	102.30	155.10	12.0
1977	168.7	9.9	7 078	72.40	114.00	175.10	12.9
1978	163.9	11.0	9 757	77.50	121.90	190.10	8.6
1979	172.9	7.9	10 420	(g) 80.00	(g) 125.80	204.20	7.4
1980	171.7	9.8	11 121	87.10	137.00	234.70	14.9
1981	174.6	11.4	12 929	93.60	147.20	261.60	11.5
1982	167.0	16.5	16 263	93.60	168.00	312.00	19.3
1983	167.6	19.0	20 355	97.60	175.20	337.10	8.0
1984	169.0	19.7	19 150	101.60	182.40	371.40	10.2
1985	179.5	18.9	18 870	108.20	194.20	390.20	5.1

(*a*) At August each year to 1977, at June each year from 1978.
(*b*) Persons on benefit on last Saturday of June. Unemployment Benefit was first paid in July, 1945. (*Source:* Department of Social Security.)
(*c*) The rates shown up to and including 1966 are those in Commonwealth awards. State Wages Boards awards are shown from 1967. The Commonwealth and State rates prior to 1967 were identical except between 1956 and 1959 when the State's rates were slightly higher.
(*d*) The Tasmanian Wages Boards introduced the concept of the minimum wage in June 1967.
(*e*) Based on the survey of average weekly earnings introduced in September quarter 1981. Amounts for June 1981 and earlier periods are estimated by linking the various pay-roll tax series with the new series at September quarter 1981.
(*f*) Over June quarter of previous year.
(*g*) Tasmanian decision of 13 July 1979 following National Wage Case decision of 27 June 1979.

(Chapter 9) **Education: Post Secondary and Tertiary, Tasmania**

Year	Tasmanian State Institute of Technology			University		
	Teaching staff full-time	Students		Teaching staff full-time	Students	
		full-time	part-time		full-time	part-time
1900	..	..	..	9	51	
1905	..	..	..	9	67	
1910	..	..	..	10	147	
1915	..	..	..	17	258	
1920	..	..	..	23	179	
1925	..	..	..	28	173	
1930	..	..	..	29	449	
1935	..	..	..	36	229	
1940	..	..	..	47	452	
1945	..	..	..	43	503	
1950	..	..	..	64	673	
1955	..	..	..	78	800	
1960	..	..	..	108	1 395	
1965	n.a.	n.a.	n.a.	145	2 300	
1970	53	238	896	202	2 260	864
1975	203	1 748	687	280	2 314	1 085
1976	206	1 824	818	293	2 468	1 068
1977	201	1 836	750	298	2 685	840
1978	210	1 855	941	309	2 514	1 003
1979	204	1 893	934	301	2 377	1 058
1980	196	1 806	1 120	301	2 344	1 173
1981	123	957	1 125	373	3 189	1 893
1982	129	929	1 251	372	3 078	2 132
1983	141	1 042	1 492	359	3 101	2 128
1984	146	1 124	1 575	359	3 243	2 145
1985	141	1 144	1 468	376	3 397	2 050

(Chapter 9) **Education: Primary and Secondary, Tasmania**

Year	Government schools			Non-government schools		
	Number of schools	Teaching staff	Students (a)	Number of schools	Teaching staff	Students (b)
1900	309	(c) 612	24 157	224	n.a.	9749
1905	343	600	24 043	167	n.a.	8 323
1910	367	677	30 805	124	420	6 278
1915	457	968	35 812	92	322	5 944
1920	470	1 102	39 360	84	317	5 872
1925	515	1 315	39 910	75	312	6 103
1930	508	1 358	40 032	66	326	5 862
1935	516	1 282	39 332	65	324	5 794
1940	431	1 398	37 369	63	329	6 139
1945	356	1 511	35 925	59	321	6 987
1950	332	1 687	46 394	58	375	8 330
1955	291	2 277	60 779	57	424	10 454
1960	287	2 540	65 049	60	544	12 716
1965	296	(d) 3 243	71 615	64	666	14 688
1970	283	3 756	79 385	68	810	14 623
1975 (e) (f)	247	4 247	74 332	58	717	13 838
1976 (e)	250	4 241	74 533	61	720	13 825
1977 (e) (g)	250	4 360	74 235	62	729	13 938
1978 (e)	253	4 584	73 676	61	757	14 251
1979 (e)	252	4 752	73 016	60	792	14 401
1980	256	4 908	72 283	59	831	14 620
1981	258	4 948	70 486	61	854	14 917
1982	259	4 901	69 142	70	904	15 326
1983	257	5 025	68 387	70	976	15 940
1984	257	5 145	67 787	71	1 030	16 464
1985 p	256	5 011	66 863	70	1 069	17 050

(a) Aggregate enrolment for whole year prior to 1960. From 1960 as at 1 August and excluding adult correspondence students.
(b) Aggregate enrolment for whole year to 1919. From 1920 to 1961 enrolment as at 31 December and thereafter at 1 August.
(c) Includes teachers, pupil-teachers and paid monitors; excludes training college staff, junior monitors, subsidised teachers, etc.
(d) Includes part-time teachers but excludes teachers at special schools from 1962.
(e) Full-time plus full-time equivalent of part-time teachers.
(f) From 1974 figures exclude kindergartens.
(g) From 1977 Government school figures are shown using National Schools Collection definitions.

(Chapter 11) Commonwealth Pensions: Tasmania

Year	Age and invalid pensions						War pensions (a)		Widows' pensions	
	Number of pensioners		Expenditure on pensions		Weekly rate (b)	Operative from	Number in force	Amount paid	Number in force	Amount paid
	Age	Invalid	Age	Invalid						
	no.	no.	$'000	$'000	$	date	no.	$'000	no.	$'000
1909–10	3 245	—	159	—	1.00	1.7.1909	—	—	—	—
1914–15	4 528	1 349	223	68	1.00	..	—	—	—	—
1919–20	4 806	1 947	364	145	1.50	13.9.1923	9 551	524	—	—
1924–25	5 856	2 036	503	180	1.75	8.10.1925	10 770	590	—	—
1929–30	7 678	2 456	753	248	2.00	23.7.1931	12 321	695	—	—
1934–35	8 495	2 975	737	263	1.75	26.12.1940	12 523	724	—	—
1939–40	10 614	2 552	1 055	256	2.10	19.8.1943	11 729	808	—	—
1944–45	9 512	2 699	1 271	368	2.70	21.10.1948	12 081	1 103	1 564	207
1949–50	11 402	3 158	2 359	670	4.25	2.11.1950	19 168	2 036	1 384	314
1950–51	11 548	2 885	2 819	724	5.00	1.11.1951	21 407	2 595	1 366	323
1951–52	11 716	2 762	3 457	831	6.00	2.10.1952	22 863	3 121	1 358	376
1952–53	12 380	2 602	4 107	879	6.75	29.10.1953	23 966	3 429	1 380	441
1953–54	12 906	2 605	4 358	908	7.00	..	24 935	3 641	1 371	461
1954–55	13 679	2 681	4 795	967	7.00	27.10.1955	25 731	3 934	1 409	475
1955–56	14 074	2 596	5 605	1 063	8.00	..	26 483	4 035	1 419	537
1956–57	14 847	2 812	5 887	1 183	8.00	24.10.1957	26 751	4 054	1 476	607
1957–58	15 114	2 883	6 527	1 315	8.75	..	27 238	4 424	1 581	677
1958–59	15 434	3 070	6 660	1 419	8.75	8.10.1959	27 621	4 458	1 663	741
1959–60	15 835	3 206	7 471	1 605	9.50	..	28 048	4 832	1 773	833
1960–61	16 552	3 338	(c) 10 101		10.00	6.10.1960	28 305	5 166	1 849	940
1961–62	17 522	3 299	11 404		10.50	5.10.1961	28 398	4 988	1 912	1 037
1962–63	17 760	3 343	11 717		10.50	..	28 214	5 668	1 977	1 084
1963–64	18 303	3 363	12 343		11.50	14.11.1963	27 913	6 158	2 109	1 467
1964–65	18 892	3 532	13 184		12.00	1.10.1964	27 109	6 214	2 248	1 699
1965–66	19 181	3 444	13 439		12.00	..	26 446	6 919	2 327	1 791
1966–67	19 590	3 530	14 574		13.00	13.10.1966	25 629	6 645	2 432	1 988
1967–68	20 411	3 548	15 414		13.00	..	25 015	6 790	2 588	2 125
1968–69	21 029	3 819	16 768		14.00	10.10.1968	24 485	7 622	2 678	2 465
1969–70	23 915	4 051	19 517		15.00	9.10.1969	23 807	7 835	2 958	2 927
1970–71	24 894	4 316	21 835		15.50	8.10.1970		8 230	3 138	3 327
					16.00	8.4.1971	23 254			
1971–72	25 668	4 498	25 543		17.25	7.10.1971		9 094	3 205	3 842
					18.25	4.5.1972	22 512			
1972–73	29 107	4 855	33 656		20.00	Aug. 1972		9 857	3 600	5 136
					21.50	Mar. 1973	21 905			
1973–74	31 904	5 087	43 032		23.00	Aug. 1973		11 176	3 932	6 582
					26.00	Apr. 1974	21 987			
1974–75	34 269	5 460	60 118		31.00	Aug. 1974		13 697	4 103	8 521
					36.00	Apr. 1975	21 474			
1975–76	35 594	6 091	77 976		38.75	Aug. 1975		14 827	4 209	11 221
					41.25	Apr. 1976	20 778			
1976–77	36 954	6 612	91 788		43.50	Aug. 1976		16 637	4 572	12 455
					47.10	Apr. 1977	20 062			
1977–78	38 204	6 205	107 203		49.30	Nov. 1977		18 676	5 001	14 660
					51.45	May 1978	18 844			
1978–79	38 885	6 427	117 678		53.20	Nov. 1978	18 127	18 696	5 229	16 621
1979–80	39 566	6 376	127 382		57.90	Nov. 1979	17 502	19 389	5 358	18 884
1980–81	40 000	6 487	142 519		61.05	May 1980	16 944	21 918	5 230	21 003
1981–82	40 413	6 615	163 130		74.15	May 1982	16 681	22 965	5 153	23 160
1982–83	40 838	6 767	176 095		85.90	Nov. 1982	16 805	28 887	5 144	24 187
1983–84	39 970	7 266	194 587		91.90	Nov. 1984	16 783	33 968	5 009	25 885
1984–85	39 162	7 614	209 200		94.30	May 1985	16 743	38 882	4 979	27 699

(*a*) Excludes pensions in respect of the Boer War which are paid by the United Kingdom.
(*b*) Maximum single rate payable; subject to means test.
(*c*) Separate figures for age and invalid pensions not available from 1960–61.

(Chapter 11) Commonwealth Social Service Benefits Paid in Tasmania

Year	Family allowances, total amount paid (a)	Maternity allowance		Unemployment benefit		Sickness benefit		Special benefit (b)	
		Claims admitted	Amount paid	Claims admitted	Amount paid	Claims admitted	Amount paid	Claims admitted	Amount paid
	$'000	no.	$'000	no.	$'000	no.	$'000	no.	$'000
1912–13		3 611	n.a.	—	—	—	—	—	—
1944–45	1 057	5 582	n.a.	—	—	—	—	—	—
1949–50	2 483	7 408	n.a.	151	4	2 840	74	126	8
1954–55	(c) 4 065	7 940	255	471	(d) 32	1 943	(d) 103	106	24
1959–60	4 719	8 985	285	3 186	242	1 883	135	130	39
1964–65	6 306	7 821	251	5 255	583	2 238	201	122	52
1965–66	6 318	7 578	243	2 742	275	2 040	174	122	57
1966–67	6 912	7 606	243	3 166	228	2 147	190	160	47
1967–68	6 612	7 939	254	3 746	264	1 952	165	99	42
1968–69	6 710	8 373	267	3 984	297	2 070	166	403	55
1969–70	7 416	8 130	259	3 825	360	2 194	199	429	68
1970–71	6 686	8 594	274	4 388	366	2 687	327	388	71
1971–72	7 196	8 211	260	8 974	966	2 964	497	418	79
1972–73	8 185	7 615	241	12 536	2 095	3 295	792	459	128
1973–74	7 212	7 296	230	11 642	3 125	3 975	1 247	574	224
1974–75	6 610	7 225	229	22 088	7 746	4 144	1 692	800	443
1975–76	7 766	7 210	215	30 930	15 256	5 018	2 409	1 760	811
1976–77	31 197	6 729	215	23 981	17 963	4 662	2 380	1 827	979
1977–78	30 968	6 836	213	27 337	23 398	4 284	2 385	1 792	804
1978–79 (e)	28 924	n.a.	91	26 294	28 609	3 881	2 024	2 071	1 299
1979–80	30 549	—	—	26 316	29 665	3 554	2 299	2 051	1 487
1980–81	27 765	—	—	28 234	34 658	3 626	2 901	3 463	2 372
1981–82	122 793	—	—	32 147	49 233	3 707	3 595	3 999	2 956
1982–83	39 146	—	—	31 686	78 302	3 750	4 618	3 652	3 428
1983–84	42 820	—	—	27 308	90 126	3 555	5 221	3 858	3 714
1984–85	42 799	—	—	25 719	96 926	3 411	5 459	3 565	3 425

(a) Known as 'child endowment' up to 1975–76; replaced by increased 'family allowances' from 1 July 1976 in conjunction with abolition of tax rebates in respect of dependent children.
(b) Includes payments to migrants.
(c) Endowment extended to first child from 20 June 1950.
(d) Rates payable were doubled from 22 September 1952.
(e) Maternity allowance ceased 1 November 1978.

(Chapter 12) Hydro-Electric Commission Tasmania (a)

Year	Installed generator capacity (a)	Number of retail consumers	Gross revenue	Working expenses and other charges
	kW	no.	$'000	$'000
1929–30	49 000	n.a.	692	636
1934–35	54 250	n.a.	814	754
1939–40	104 500	n.a.	1 212	1 172
1944–45	160 500	55 073	1 776	1 588
1949–50	184 500	75 927	2 938	2 926
1959–60	541 150	117 266	14 570	14 932
1964–65	856 550	131 593	25 009	23 500
1965–66	807 550	134 679	26 293	25 569
1966–67	849 150	135 941	28 299	27 058
1967–68	945 300	139 886	27 627	28 607
1968–69	1 005 600	143 551	33 638	31 824
1969–70	1 031 600	146 958	37 296	35 095
1970–71	1 281 200	149 911	40 151	40 070
1971–72	1 309 200	152 934	46 286	46 278
1972–73	1 352 400	156 570	49 511	49 297
1973–74	1 342 400	160 307	52 730	54 026
1974–75	1 442 400	163 479	62 295	61 870
1975–76	1 462 400	167 507	72 699	72 312
1976–77	1 492 400	171 847	80 372	80 292
1977–78	1 636 400	176 005	95 519	95 269
1978–79	1 780 400	179 861	109 130	108 930
1979–80	1 780 400	183 607	120 505	119 993
1980–81	1 780 400	187 072	139 107	136 712
1981–82	1 860 300	189 723	165 236	159 270
1982–83	1 940 200	192 034	181 741	185 811
1983–84	1 940 200	n.a.	215 628	218 674
1984–85	1 940 200	n.a.	238 160	233 685

(a) Excludes King and Flinders Islands.

(Chapter 14) Postal Services, Tasmania

Year	Letters and postcards	Mail posted in Tasmania or received from overseas		Registered articles
		Newspapers and packets	Parcels	
	'000	'000	'000	'000
1929–30	39 956	7 128	198	307
1939–40	33 874	5 525	132	314
1949–50	50 038	8 440	368	674
1959–60	43 020	9 629	233	456
1960–61	43 242	9 432	231	404
1961–62	42 603	9 714	242	390
1962–63	45 202	9 183	237	379
1963–64	47 452	9 340	232	371
1964–65	49 108	9 549	263	371
1965–66	51 710	10 309	288	375
1966–67	55 594	10 531	302	379
1967–68	55 273	10 141	303	349
1968–69	56 516	9 425	282	325
1969–70	58 824	8 953	300	312
1970–71	57 916	8 640	353	313
1971–72	54 780	6 773	352	268
1972–73	63 187		358	228
1973–74	63 272		289	203
1974–75	59 644		308	193
1975–76	44 829	5 528	220	132
1976–77	45 406	5 627	310	126
1977–78	48 690	7 569	342	124
1978–79	51 828	12 252	379	121
1979–80	53 902	10 962	444	119
1980–81	57 204	6 628	544	127
1981–82	51 503	5 773	543	125
1982–83	49 603	5 986	548	116
1983–84	50 669	6 459	550	108
1984–85	53 684	6 736	629	110

(Chapter 14) Telecommunications, Radiocommunications, Broadcasting and Television, Tasmania

Year	Telegrams		Telephones			Radiocommunication, broadcasting and television stations		
	Despatched to and received from other countries	Despatched to places within Australia	Telephone exchanges	Telephone services connected at end of period		Radio communication	Broadcasting	Television
				Lines	Instruments			
	'000	'000	no.	'000	'000	no.	no.	no.
1929–30	19	455	360	12	15	20	3	..
1939–40	16	471	357	15	19	25	11	..
1949–50	36	952	370	23	31	198	11	..
1959–60	43	537	391	47	63	882	12	2
1964–65	52	550	365	59	82	2 574	12	4
1965–66	60	582	349	62	86	2 951	12	4
1966–67	53	621	331	65	89	3 561	12	4
1967–68	(a) 21	575	312	67	93	3 856	12	4
1968–69	24	562	288	70	98	4 377	12	4
1969–70	24	542	273	75	105	4 994	12	4
1970–71	36	499	257	78	114	5 499	12	4
1971–72	36	458	238	80	113	5 892	12	5
1972–73	473		230	85	118	6 390	12	5
1973–74	472		224	90	127	6 570	12	5
1974–75	424		212	96	133	7 347	12	5
1975–76	356		206	100	140	7 915	12	5
1976–77	298		198	105	146	8 687	15	5
1977–78	242		197	112	155	(b) 15 612	15	5
1978–79	178		196	118	164	15 008	15	5
1979–80	135		196	125	174	15 383	16	5
1980–81	122		197	133	202	13 746	17	5
1981–82	107		197	139	192	13 413	17	5
1982–83	91		197	145	212	21 204	17	5
1983–84	74		197	151	231	21 609	18	5
1984–85	62		197	162	247	23 262	18	5

(a) From 1967–68 excludes telegrams received, details of which are no longer available.
(b) Includes licensed Citizens Band Radio Service operators from 1977–78.

(Chapter 14) Motor Vehicle Registrations, Tasmania (*a*)

Year	Motor vehicles on the register at end of year					New motor vehicles registered during year			
	Motor cars and station wagons								
	Number ('000)	Persons per vehicle registered	Commercial vehicles ('000)	Motor cycles ('000)	Total ('000)	Motor cars and station wagons	Commercial vehicles	Motor cycles	Total
1924–25	5.8	36.9	(*b*) 0.8	2.7	9.3				
1925–26	7.1	30.4	1.0	3.0	11.1				
1926–27	8.4	25.1	1.2	3.5	13.1	n.a.	n.a.	n.a.	n.a.
1927–28	9.7	22.0	1.6	3.9	15.2				
1928–29	11.4	19.0	1.9	4.4	17.6				
1929–30	12.5	17.6	(*c*) 2.2	4.8	19.5	1 627	(*c*) 552	939	3 118
1930–31	12.0	18.3	2.2	4.3	18.5				
1931–32	11.3	20.0	2.2	3.7	17.2	n.a.	n.a.	n.a.	n.a.
1932–33	11.6	19.6	2.5	3.7	17.8				
1933–34	12.0	19.0	2.7	3.8	18.5				
1934–35	12.9	17.8	3.0	3.9	19.8	982	422	171	1 575
1935–36	14.0	16.4	3.6	3.9	21.6	n.a.	n.a.	n.a.	n.a.
1936–37	15.1	15.4	4.0	3.6	22.7	1 572	620	281	2 473
1937–38	16.6	14.1	4.5	3.6	24.8	1 802	707	287	2 796
1938–39	17.7	13.4	5.0	3.7	26.4	2 010	700	350	3 060
1939–40	17.6	13.6	5.2	3.4	26.2	1 400	540	176	2 116
1940–41	17.3	13.9	5.5	3.2	26.1	553	359	90	1 002
1941–42	14.2	17.0	5.4	2.2	21.9	127	156	13	296
1942–43	15.8	15.4	5.6	2.5	23.9	69	91	3	163
1943–44	16.7	14.7	6.3	2.6	25.6	29	523	..	552
1944–45	17.1	14.5	7.0	2.8	26.8	26	331	1	358
1945–46	17.4	14.5	7.8	3.2	28.4	43	351	73	467
1946–47	18.5	13.9	9.0	3.6	31.2	741	667	472	1 880
1947–48	19.9	13.1	10.2	4.1	34.2	1 541	1 084	621	3 246
1948–49	22.5	11.9	11.7	4.7	38.9	2 611	1 202	812	4 625
1949–50	25.3	10.9	12.9	4.9	43.2	3 311	1 565	886	5 762
1950–51	28.8	9.9	15.1	5.3	49.2	4 187	2 319	960	7 466
1951–52	32.5	9.1	16.8	5.7	55.1	4 267	2 073	938	7 278
1952–53	35.4	8.6	19.4	5.7	60.5	3 368	1 724	474	5 566
1953–54	40.0	7.7	19.7	5.6	65.4	4 178	1 896	450	7 064
1954–55	44.9	7.0	21.5	5.3	71.7	5 738	2 285	417	8 440
1955–56	48.0	6.6	21.9	4.8	74.7	5 457	2 179	332	7 968
1956–57	51.7	6.3	22.6	4.4	78.6	5 309	1 988	340	7 637
1957–58	55.9	6.0	23.9	4.0	83.8	5 337	1 944	225	7 506
1958–59	59.1	5.7	25.0	3.6	87.7	5 362	2 113	176	7 651
1959–60	63.7	5.4	26.4	3.1	93.2	6 527	2 115	96	8 738
1960–61	68.1	5.1	26.7	2.6	97.4	6 723	2 058	61	8 842
1961–62	72.8	4.9	27.4	2.4	102.6	6 931	1 778	59	8 768
1962–63	77.9	4.6	27.5	1.9	107.3	9 003	1 986	52	11 041
1963–64	84.4	4.3	28.0	1.7	114.1	10 268	2 343	53	12 664
1964–65	91.3	4.0	28.9	1.5	121.7	10 522	2 389	69	12 980
1965–66	96.8	3.8	29.7	1.5	128.0	10 133	2 878	207	13 218
1966–67	101.7	3.7	30.2	1.6	133.5	10 390	2 611	380	13 381
1967–68	107.7	3.5	31.1	2.2	141.0	11 738	2 412	751	14 901
1968–69	113.7	3.4	32.2	2.8	148.7	10 845	2 529	781	14 155
1969–70	118.6	3.3	32.6	3.1	154.3	11 399	2 456	799	14 654
1970–71	124.9	3.1	32.9	3.5	161.3	11 792	2 550	794	15 136
1971–72	130.2	3.0	33.8	3.8	167.8	11 961	2 492	978	15 431
1972–73	135.4	2.9	34.6	4.5	174.5	12 970	2 813	1 343	17 126
1973–74	141.2	2.8	35.3	6.1	182.6	13 674	2 846	2 600	19 120
1974–75	150.3	2.7	36.6	7.4	194.3	16 097	3 980	2 749	22 826
1975–76	156.9	2.6	39.1	6.8	202.8	14 410	3 971	1 831	20 212
1976–77	162.7	2.5	40.5	6.2	209.4	14 520	4 260	1 428	20 208
1977–78	171.9	2.4	41.2	5.0	218.1	13 884	4 170	972	19 026
1978–79	178.8	2.4	42.9	4.8	226.6	13 928	3 401	892	18 221
1979–80	177.2	2.4	47.5	4.7	229.5	13 333	3 454	1 089	17 876
1980–81	183.5	2.3	49.0	4.9	237.4	13 563	3 444	1 278	18 285
1981–82	186.5	2.3	50.5	5.1	242.1	12 210	3 302	1 110	16 622
1982–83	191.0	2.3	52.5	5.8	249.3	11 279	3 209	990	15 478
1983–84	195.0	2.2	54.8	6.1	255.9	13 214	3 791	1 027	18 032
1984–85	201.0	n.a.	57.1	6.3	264.4	13 840	4 731	991	19 562

(*a*) Includes State Government and Commonwealth Government-owned vehicles but excludes those belonging to the Defence Services.
(*b*) Trucks only.
(*c*) From 1929–30 includes trucks, utilities, panel vans and omnibuses.

(Chapter 14) Motor Vehicles on Register and Traffic Accidents, Tasmania

Year	Motor vehicles on the register at end of year (a)		Traffic accidents involving casualties					
			Accidents		Persons killed		Persons injured	
	Number ('000)	Persons per vehicle registered	Number	Per 10 000 vehicles registered (b)	Number	Per 100 000 vehicles registered (b)	Number	Per 10 000 vehicles registered (b)
1949–50	43.2	6.4	969	242	64	16.0	1 154	288
1954–55	71.7	4.4	864	127	57	8.3	1 111	163
1959–60	93.2	3.7	743	82	79	8.7	1 004	111
1964–65	121.7	3.0	1 180	100	97	8.2	1 692	143
1965–66	128.0	2.9	1 291	103	88	7.0	1 955	157
1966–67	133.5	2.8	1 356	104	102	7.8	2 081	159
1967–68	141.0	2.7	1 268	92	112	8.2	1 990	145
1968–69	148.7	2.6	1 400	97	122	8.4	2 228	154
1969–70	154.3	2.5	1 413	93	122	8.0	2 268	150
1970–71	161.3	2.4	1 396	89	124	7.9	2 031	129
1971–72	167.8	2.3	1 371	83	118	7.2	1 984	120
1972–73	174.5	2.3	1 423	83	83	4.8	2 052	119
1973–74	182.6	2.2	1 454	81	126	7.0	2 046	114
1974–75	194.3	2.1	1 466	77	120	6.3	2 061	108
1975–76	202.8	2.0	1 502	74	107	5.3	2 160	107
1976–77	209.4	2.0	1 606	77	103	4.9	2 314	110
1977–78	218.1	1.9	1 674	78	118	5.5	2 402	112
1978–79	226.6	1.9	1 537	69	98	4.4	2 113	95
1979–80	229.5	1.8	1 510	66	77	3.4	2 140	94
1980–81	237.4	1.8	1 634	70	120	5.1	2 186	94
1981–82	242.1	1.8	1 532	64	114	4.8	2 209	92
1982–83 (c)	249.3	1.7	1 114	46	73	3.0	1 524	62
1983–84	255.9	1.7	1 333	52	76	3.0	1 856	73
1984–85	266.4	1.7	1 435	54	85	3.2	1 952	73

(a) Includes cars, commercial vehicles, motor cycles and Commonwealth-owned vehicles other than Defence Services vehicles.
(b) Based on average number of motor vehicles (including motor cycles) on the register.
(c) Random breath tests introduced.

(Chapter 14) Metropolitan Transport Trust Passenger Services, Tasmania (a)

Year	Hobart and Launceston services					Revenue (b)	Expenditure (c)
	Route kilometres open for traffic	Hobart		Launceston			
		Vehicle kilometres	Passenger journeys	Vehicle kilometres	Passenger journeys		
		daily average	daily average	daily average	daily average	$'000	$'000
1955–56	121	10 602	50 028	4 060	18 006	1 304	1 690
1960–61	198	16 964	49 946	5 058	17 462	1 997	2 586
1961–62	203	17 022	48 994	5 055	17 217	1 955	2 629
1962–63	208	16 732	48 051	4 736	16 279	1 905	2 537
1963–64	222	17 537	47 554	4 775	15 731	1 882	2 584
1964–65	224	17 566	45 985	4 598	15 183	1 829	2 606
1965–66	243	17 239	43 383	4 760	14 767	1 964	2 749
1966–67	248	17 323	42 967	4 843	14 728	2 124	3 008
1967–68	259	17 408	41 803	4 947	13 953	2 158	3 122
1968–69	286	17 745	40 675	4 730	13 365	2 270	3 250
1969–70	290	17 886	39 932	4 801	13 018	2 332	3 358
1970–71	290	18 055	40 058	4 633	12 521	2 321	3 741
1971–72	291	17 703	37 584	4 585	11 708	2 639	3 949
1972–73	308	17 106	36 572	4 530	11 397	2 659	4 333
1973–74	314	17 585	38 027	4 604	11 988	2 751	5 283
1974–75	364	19 031	40 791	4 650	12 055	2 916	8 299
1975–76	357	19 850	40 646	4 704	11 969	3 000	8 084
1976–77	358	20 791	39 507	4 219	11 283	2 862	8 945
1977–78	365	21 405	39 314	4 269	10 767	3 547	10 151
1978–79	366	20 685	34 870	4 148	9 552	4 186	10 672
1979–80	368	20 333	34 384	4 345	9 515	4 183	11 300
1980–81	r 344	21 551	34 161	4 306	9 368	4 896	13 458
1981–82 (d)	r 352	20 922	28 803	4 175	7 836	5 625	14 524
1982–83	r 357	20 871	29 107	4 015	7 762	5 710	15 453
1983–84	r 378	20 630	29 589	4 002	7 781	5 641	16 715
1984–85	381	20 991	29 512	3 999	7 830	5 646	17 573

(a) Includes tram, omnibus and trolley-bus services originally under municipal control but taken over by Metropolitan Transport Trust on 1.7.55. Trams ceased operating: Hobart 21.10.60; Launceston 13.12.52.
(b) Prior to 1955–56 includes government grants: see note (a) above
(c) Includes interest, redemption and depreciation.
(d) The method used for calculating passengers changed after a change in ticketing procedures revealed inaccuracies.

(Chapter 15) **Land Settlement: Land Utilisation, Tasmania ('000 ha)**

Year (a)	Land settlement (b)				Year (a)	Land utilisation on rural establishments			
	Land		Crown land			Area under			
	Alienated	In process of alienation	Leased or licensed (c)	Other		Crops (d)	Sown grasses (d)	Balance of area	Total area of rural estab.
1860	1 242				1860–61	62			
1870	1 540		(e)	(e)	1870–71	64	(e)	(e)	(e)
1880	1 713				1880–81	57			
1890	1 900		293	4 640	1890–91	64	81		
1900	1 957		513	4 364	1900–01	91	124	1 782	1 996
1910	1 996	447	591	3 799	1910–11	116	200	1 862	2 178
1920	2 121	390	920	3 402	1920–21	120	267	2 216	2 603
1930	2 315	219	1 122	3 177	1930–31	108	305	2 241	2 654
1940	2 392	171	1 098	3 172	1940–41	103	313	2 282	2 698
1941	2 400	169	1 129	3 135	1941–42	114	318	2 316	2 748
1942	2 411	163	1 113	3 146	1942–43	121	n.a.	n.a.	2 641
1943	2 418	162	1 140	3 113	1943–44	136	164	2 287	2 587
1944	2 427	168	1 134	3 104	1944–45	139	165	2 331	2 635
1945	2 439	165	1 123	3 107	1945–46	132	234	2 256	2 622
1946	2 448	161	1 110	3 115	1946–47	123	230	2 237	2 590
1947	2 460	157	1 100	3 116	1947–48	112	223	2 167	2 502
1948	2 473	153	1 087	3 121	1948–49	112	268	2 098	2 478
1950	2 486	148	1 134	3 065	1949–50	118	308	2 169	2 594
1951	2 496	145	1 080	3 112	1950–51	122	322	2 176	2 621
1952	2 514	142	1 108	3 069	1951–52	124	237	2 155	2 605
1953	2 525	139	1 111	3 058	1952–53	130	326	2 198	2 654
1954	2 534	137	1 055	3 107	1953–54	142	336	2 156	2 635
1955	2 516	134	1 018	3 136	1954–55	132	363	2 177	2 672
1956	2 554	126	1 010	3 143	1955–56	137	400	2 145	2 682
1957	2 561	127	655	3 490	1956–57	122	424	2 088	2 634
1958	2 568	84	623	3 558	1957–58	122	458	2 070	2 649
1959	2 575	81	615	3 562	1958–59	144	461	2 055	2 660
1960	2 584	77	618	3 554	1959–60	135	491	2 009	2 635
1961	2 591	86	626	3 531	1960–61	153	487	1 995	2 635
1962	2 597	80	606	3 551	1961–62	155	508	1 988	2 651
1963	2 602	80	586	3 565	1962–63	165	515	1 919	2 599
1964	2 670	89	628	3 446	1963–64	158	552	1 871	2 581
1965	2 679	83	595	3 476	1964–65	167	576	1 855	2 598
1966	2 677	84	540	3 531	1965–66	158	622	1 849	2 629
1967	2 692	100	535	3 506	1966–67	181	628	1 825	2 633
1968	2 692	93	478	3 571	1967–68	170	680	1 813	2 663
1969	2 693	96	465	3 579	1968–69	193	618	1 776	2 667
1970	2 697	100	442	3 594	1969–70	169	737	1 732	2 637
1971	2 702	99	381	3 651	1970–71	172	747	1 712	2 631
1972	2 697	100	274	3 760	1971–72	147	772	1 688	2 607
1973	2 729	133	248	3 723	1972–73 (f)	80	856	1 656	2 592
1974	2 731	135	236	3 728	1973–74	74	920	1 567	2 561
1975	2 755	159	223	3 693	1974–75	67	921	1 504	2 492
1976	2 751	154	229	3 696	1975–76 (g)	60	935	1 464	2 459
1977	2 743	146	163	3 778	1976–77 (g)	65	904	1 340	2 308
1978	2 517	120	165	4 028	1977–78	70	910	1 302	2 281
1979	2 494	96	148	4 092	1978–79	80	904	1 247	2 232
1980	2 487	90	n.a.	n.a.	1979–80	78	895	1 256	2 229
1981	2 486	90	n.a.	n.a.	1980–81	84	903	1 234	2 220
1982	2 590	—	4 235		1981–82	90	910	1 168	2 168
1983	n.a.	n.a.	n.a.	n.a.	1982–83	98	903	1 167	2 168
1984	n.a.	n.a.	n.a.	n.a.	1983–84	101	905	1 155	2 162
1985	n.a.	n.a.	n.a.	n.a.	1984–85	99	918	1 103	2 120

(*a*) At 31 December until 1948: at 30 June for 1950 and subsequent years.
(*b*) Area of State, 68 300 square kilometres.
(*c*) Excludes areas under pulpwood concessions and exclusive forest permits.
(*d*) Area of sown grasses cut for hay, seed and green fodder is included under 'crops'.
(*e*) Not available on a comparable basis.
(*f*) From 1972–73 area of sown grasses cut for hay, seed and green fodder are included under 'sown grasses'.
(*g*) Not strictly comparable with earlier years due to changes in definition of a 'rural establishment'.

(Chapter 15) **Area and Production of Principal Crops, Tasmania**

Year	*Barley for grain*			*Oats for grain*			*Wheat for grain*			*Blue peas*		
	Area	*Total production*	*Yield per hectare*	*Area*	*Total production*	*Yield per hectare*	*Area*	*Total production*	*Yield per hectare*	*Area*	*Total production*	*Yield per hectare*
	ha	*tonnes*	*tonnes*	*ha*	*tonnes*	*tonnes*	*ha*	*tonnes*	*tonnes*	*ha*	*tonnes*	*tonnes*
1860–61	2 524	2 877	1.14	12 263	16 844	1.37	26 891	38 267	1.42			
1870–71	3 082	3 676	1.19	12 523	12 568	1.00	23 222	24 240	1.04			
1880–81	3 358	3 844	1.14	8 034	7 990	0.99	20 243	20 271	1.00			
1890–91	1 771	2 269	1.28	8 393	9 444	1.13	13 133	17 378	1.32	n.a.	n.a.	n.a.
1900–01	1 822	2 657	1.46	18 240	25 580	1 40	20 973	30 011	1.43			
1910–11	2 119	3 234	1.53	25 854	37 515	1.45	21 142	30 290	1.43			
1920–21	2 489	3 667	1.47	20 426	27 530	1.35	11 446	15 294	1.34	3 476	4 945	1.42
1921–22	2 930	3 794	1.29	22 113	28 066	1.27	11 325	15 599	1.38	4 182	5 212	1.25
1922–23	2 309	3 455	1.50	23 801	30 450	1.28	10 216	15 394	1.51	3 532	4 377	1.24
1923–24	1 712	2 151	1 26	20 825	24 723	1.19	5 869	8 260	1.41	2 927	4 346	1.48
1924–25	1 218	1 153	0.95	18 686	19 381	1.04	5 242	6 254	1.19	3 112	3 362	1.08
1925–26	2 114	2 059	0.97	14 869	15 191	1.02	7 726	10 692	1.38	3 324	2 891	0.87
1926–27	2 293	3 405	1.48	19 571	24 673	1.26	9 386	14 513	1.55	3 043	4 055	1.33
1927–28	2 064	3 214	1.56	17 381	25 452	1.46	8 531	20 896	2.45	3 672	5 631	1.53
1928–29	1 867	2 252	1.21	15 217	18 389	1.21	9 134	12 306	1.35	3 960	4 624	1.17
1929–30	2 806	3 795	1.35	15 807	21 365	1.35	6 801	10 158	1.49	4 097	6 031	1.47
1930–31	2 506	3 832	1.53	14 536	19 141	1.32	7 732	10 581	1.37	2 859	4 060	1.42
1931–32	3 390	2 721	0.80	7 451	6 488	0.87	4 744	4 944	1.04	2 439	2 079	0.85
1932–33	3 478	4 808	1.38	12 404	15 059	1.21	8 492	11 704	1.38	3 687	5 688	1.54
1933–34	3 173	3 915	1.23	12 626	15 532	1.23	9 752	15 153	1.55	5 663	6 592	1.16
1934–35	2 339	3 989	1.71	14 816	19 168	1.29	6 740	8 311	1.23	5 283	4 722	0.89
1935–36	2 115	2 107	1.00	9 683	10 123	1.05	4 210	5 027	1.19	4 116	3 430	0.83
1936–37	2 811	5 470	1.95	8 884	13 659	1.54	8 627	15 430	1.79	2 613	3 912	1.50
1937–38	3 762	6 958	1.85	13 128	18 767	1.43	8 531	14 216	1.67	1 882	2 707	1.44
1938–39	3 518	4 731	1.34	10 049	11 727	1.17	3 986	5 548	1.39	1 787	2 050	1.15
1939–40	3 125	4 446	1.42	9 352	9 626	1.03	3 033	2 911	0.96	2 113	3 407	1.61
1940–41	2 286	3 349	1.47	7 099	7 569	1.07	3 253	3 794	1.17	3 830	5 237	1.37
1941–42	2 153	2 672	1.24	11 043	15 248	1.38	2 596	3 924	1.51	7 485	8 452	1.13
1942–43	1 104	1 428	1.29	5 325	5 310	1.00	1 671	1 982	1.19	10 989	10 961	1.00
1943–44	1 391	2 150	1.55	3 943	5 438	1.38	1 958	3 301	1.69	15 176	15 785	1.04
1944–45	2 189	3 616	1.65	5 977	7 630	1.28	1 551	2 504	1.61	8 828	13 014	1.47
1945–46	2 730	2 803	1.03	5 656	5 120	0.91	2 016	1 801	0.89	9 420	7 922	0.84
1946–47	2 532	3 538	1.40	9 181	10 825	1.18	3 051	3 763	1.23	4 773	6 364	1.33
1947–48	3 298	4 961	1.50	6 910	6 548	0.95	3 147	3 195	1.02	2 783	3 938	1.42
1948–49	2 966	4 728	1.59	4 734	4 756	1.00	2 779	4 211	1.52	2 625	3 999	1.52
1949–50	1 759	2 975	1.69	9 232	10 499	1.14	2 215	3 440	1.55	3 101	3 955	1.28
1950–51	1 320	2 061	1.56	9 486	7 802	0.82	2 152	2 564	1.19	3 395	4 630	1.36
1951–52	1 716	3 400	1.98	10 740	10 803	1.01	1 458	2 541	1.74	3 078	5 338	1.73
1952–53	3 253	4 930	1.52	8 114	5 197	0.64	2 707	4 227	1.56	1 411	1 903	1.35
1953–54	3 819	6 738	1.76	8 141	8 381	1.03	3 921	7 116	1.81	2 159	3 096	1.43
1954–55	2 936	4 541	1.55	9 154	8 212	0.90	2 955	4 286	1.45	2 292	3 093	1.35
1955–56	2 558	4 339	1.70	11 604	9 964	0.86	2 519	3 478	1.38	2 334	3 690	1.58
1956–57	2 865	5 341	1.86	6 701	4 594	0.69	1 578	2 393	1.52	3 349	5 088	1.52
1957–58	3 393	6 140	1.81	8 381	8 762	1.05	2 381	4 148	1.74	2 923	3 854	1.32
1958–59	3 777	6 696	1.77	8 984	8 921	0.99	2 605	4 423	1.70	1 002	1 302	1.30
1959–60	5 016	9 511	1.90	8 910	9 305	1.04	3 344	4 912	1.47	1 285	2 148	1.67
1960–61	6 204	7 821	1.26	9 449	7 114	0.75	2 797	4 003	1.43	1 332	1 198	0.90
1961–62	7 579	13 794	1.82	10 908	10 676	0.98	6 300	9 327	1.48	1 566	2 814	1.80
1962–63	7 993	14 340	1.79	12 587	15 046	1.20	6 208	11 322	1.82	2 299	3 409	1.48
1963–64	5 581	9 414	1.69	12 280	15 339	1.25	7 107	13 047	1.84	2 087	2 693	1.29
1964–65	6 264	12 031	1.92	11 366	9 463	0.83	6 801	9 842	1.45	1 603	2 752	1.72
1965–66	8 056	15 541	1.93	11 449	12 304	1.07	5 709	9 955	1.74	2 223	2 779	1.25
1966–67	8 521	17 540	2.06	14 532	17 236	1.19	5 159	10 412	2.02	1 769	3 039	1.72
1967–68	9 733	20 096	2.06	14 314	18 430	1.29	4 864	8 548	1.76	1 725	2 540	1.47
1968–69	10 608	20 092	1.89	12 721	10 598	0.83	7 039	11 088	1.58	1 358	2 160	1.59
1969–70	12 016	24 896	2.07	8 971	8 272	0.92	5 962	9 531	1.60	1 577	3 224	2.04
1970–71	12 884	29 825	2.31	9 444	8 839	0.94	4 479	7 638	1.71	2 023	4 608	2.28
1971–72	12 576	27 753	2.21	6 432	7 065	1.10	4 570	8 299	1.82	1 025	1 650	1.61
1972–73	12 802	18 711	1.46	6 477	7 144	1.10	4 251	7 701	1.81	504	387	0.77
1973–74	11 121	23 790	2.13	9 173	8 247	0.89	2 521	3 510	1.39	587	1 027	1.74
1974–75	12 020	27 266	2.27	6 069	5 496	0.90	1 535	2 282	1.48	969	2 171	2.24
1975–76	11 475	18 389	1.60	3 924	3 497	0.89	1 644	1 728	1.05	209	261	1.25
1976–77	11 644	24 571	2.11	6 387	8 801	1.38	1 980	3 929	1.98	81	139	1.72
1977–78	11 444	19 403	1.70	4 616	4 279	0.93	1 257	1 545	1.23	326	417	1.28
1978–79	11 938	26 971	2.26	8 564	11 826	1.38	1 366	2 867	2.10	466	928	1.99
1979–80	10 558	17 304	1.60	7 489	7 937	1.10	1 972	3 727	1.90	548	684	1.20
1980–81	10 056	18 307	1.82	8 781	11 146	1.26	1 614	2 545	1.57	413	587	1.42
1981–82	12 108	23 267	1.92	9 923	13 381	1.35	1 293	2 342	1.81	459	740	1.61
1982–83	12 358	21 925	1.80	7 965	8 912	1.10	928	1 489	1.60	330	520	1.60
1983–84	15 059	34 119	2.30	13 978	24 729	1.80	1 142	2 841	2.50	388	981	2.50
1984–85	12 352	29 700	2.40	9 851	15 855	1.60	2 456	4 389	1.80	799	2 079	2.60

continued next page

(Chapter 15) Area and Production of Principal Crops, Tasmania—*continued*

Year	Potatoes			Hops			Pasture hay			Apples		
	Area	Total production	Yield per hectare	Bearing area	Total production	Yield per hectare	Area	Total production	Yield per hectare	Bearing area (a)	Total production	Yield per hectare
	ha	tonnes	tonnes	ha	tonnes	tonnes	ha	tonnes	tonnes	ha	tonnes	tonnes
1860–61	3 084	34 128	11.07	n.a.	n.a.	n.a.	12 880	63 318	4.92		2 267	
1870–71	3 975	36 606	9.21	260	339	1.30	13 602	41 417	3.04		2 819	
1880–81	4 217	33 070	7.84	230	292	1.27	12 794	36 459	2.85	n.a.	2 953	n.a.
1890–91	8 147	74 332	9.12	151	196	1.30	18 365	52 856	2.88		7 030	
1900–01	9 335	95 368	10.22	253	316	1.25	24 868	95 710	3.85		10 497	
1910–11	10 615	71 215	6.71	420	805	1.92	29 539	117 039	3.96		25 681	
1920–21	12 950	90 102	6.96	516	845	1.64	45 980	179 636	3.91	10 364	44 941	4.34
1921–22	14 890	109 351	7.34	572	995	1.74	37 006	139 190	3.76	10 829	56 982	5.26
1922–23	13 924	102 825	7.38	599	986	1.65	40 504	169 967	4.20	10 372	59 592	5.75
1923–24	14 989	101 540	6.77	604	1 040	1.72	39 329	146 614	3.73	10 393	36 006	3.46
1924–25	14 638	84 715	5.88	605	1 009	1.67	35 590	123 054	3.46	10 383	42 103	4.05
1925–26	13 431	68 422	5.09	483	791	1.64	37 472	116 764	3.12	10 311	78 719	7.63
1926–27	13 753	115 931	8.43	528	974	1.84	39 776	153 627	3.86	10 120	55 248	5.46
1927–28	17 951	141 065	7.86	514	1 119	2.18	34 710	126 929	3.66	10 237	89 025	8.70
1928–29	15 094	76 429	5.06	480	875	1.82	32 452	121 344	3.74	10 219	47 628	4.66
1929–30	13 647	92 600	6.79	472	872	1.85	32 437	121 723	3.75	9 562	75 221	7.87
1930–31	15 066	96 818	6.43	393	760	1.93	33 697	131 027	3.89	9 672	72 394	7.48
1931–32	14 727	96 920	6.58	345	725	2.10	34 118	94 081	2.76	9 377	111 334	11.87
1932–33	14 475	99 809	6.90	321	628	1.96	37 501	143 403	4.20	9 402	84 015	8.94
1933–34	14 778	82 578	5.59	328	730	2.22	31 414	111 153	3.54	9 436	94 360	10.00
1934–35	14 714	71 142	4.83	334	831	2.49	38 857	152 492	3.92	9 485	74 947	7.90
1935–36	14 050	87 183	6.21	352	981	2.79	30 247	98 443	2.53	9 296	75 251	8.09
1936–37	14 960	140 781	9.41	365	950	2.60	36 177	139 068	3.84	8 745	87 844	10.05
1937–38	13 139	101 574	7.73	357	958	2.68	29 561	114 809	3.88	8 881	91 292	10.28
1938–39	10 803	90 764	8.40	373	1 041	2.79	32 358	111 291	3.44	8 684	109 048	12.56
1939–40	12 323	116 245	9.43	368	808	2.20	38 957	143 674	3.69	8 850	98 075	11.08
1940–41	15 121	115 871	7.66	369	1 351	3.66	30 789	96 708	3.14	8 808	113 277	12.86
1941–42	12 400	111 613	9.00	427	1 280	3.00	37 488	149 997	4.00	8 970	121 107	13.50
1942–43	16 359	138 112	8.44	448	1 183	2.64	33 209	111 721	3.36	8 889	109 410	12.31
1943–44	24 484	221 296	9.04	435	1 267	2.91	40 178	156 303	3.89	8 896	152 846	17.18
1944–45	32 817	350 773	4.55	441	1 102	2.50	38 855	148 253	3.82	8 723	125 165	14.35
1945–46	22 762	239 930	10.54	445	904	2.03	40 371	118 958	2.95	8 702	162 353	18.66
1946–47	17 493	173 359	9.91	490	1 005	2.05	42 093	172 103	4.09	8 544	80 548	9.43
1947–48	16 342	145 037	8.88	506	1 113	2.20	34 137	139 857	4.10	8 239	150 389	18.25
1948–49	13 079	133 915	10.24	508	694	1.37	36 656	153 118	4.18	7 826	48 828	6.24
1949–50	13 804	123 958	8.98	518	977	1.89	36 962	158 151	4.28	7 661	91 330	11.92
1950–51	12 780	125 990	9.86	518	1 125	2.17	39 007	163 301	4.19	7 378	92 359	12.52
1951–52	12 753	153 424	12.03	531	778	1.47	39 563	175 051	4.42	7 273	93 921	12.91
1952–53	14 304	116 338	8.13	524	1 367	2.61	44 534	195 289	4.39	7 200	71 575	9.94
1953–54	13 971	146 616	10.49	518	973	1.88	49 877	245 459	4.92	7 184	101 047	14.07
1954–55	10 606	102 621	9.68	539	1 353	2.51	39 051	160 495	4.11	6 890	95 426	13.85
1955–56	8 434	79 181	9.39	531	1 437	2.71	55 505	265 619	4.79	6 950	112 896	16.24
1956–57	7 740	91 140	11.78	569	974	1.71	49 837	242 209	4.86	6 754	64 792	9.59
1957–58	8 780	103 129	11.75	571	1 302	2.28	44 581	208 062	4.67	6 804	126 403	18.58
1958–59	6 550	87 279	13.32	579	1 535	2.65	62 250	306 923	4.93	6 651	94 931	14.27
1959–60	6 283	99 573	15.85	581	1 270	2.19	51 211	224 778	4.39	6 509	104 266	16.02
1960–61	4 401	39 677	9.02	569	1 279	2.25	69 206	331 206	4.79	6 404	106 571	16.64
1961–62	4 504	72 709	16.14	571	1 287	2.25	63 632	289 971	4.56	6 239	149 436	23.95
1962–63	5 600	83 870	14.98	588	1 298	2.21	66 952	318 028	4.75	6 268	119 297	19.03
1963–64	4 373	66 470	15.20	592	717	1.21	60 557	253 175	4.18	6 291	162 791	25.88
1964–65	3 801	57 978	15.25	597	947	1.59	72 947	370 204	5.07	6 286	118 250	18.81
1965–66	4 853	77 626	16.00	603	1 392	2.31	59 824	261 366	4.37	6 254	159 343	25.48
1966–67	4 159	74 476	17.91	594	948	1.60	82 225	443 919	5.40	6 165	120 040	19.47
1967–68	4 435	80 327	18.11	608	1 363	2.24	72 373	314 060	4.34	6 048	151 322	25.02
1968–69	4 638	73 278	15.80	616	1 582	2.57	85 212	502 159	5.89	5 863	135 986	23.19
1969–70	3 790	67 995	17.94	565	1 268	2.24	69 526	367 340	5.28	5 804	140 977	24.29
1970–71	3 640	72 591	19.94	452	1 077	2.38	85 656	447 766	5.23	5 715	140 463	24.58
1971–72	3 593	70 370	19.59	539	1 159	2.15	81 176	449 936	5.54	5 218	111 887	21.44
1972–73	3 330	78 286	23.51	616	1 450	2.35	53 937	215 580	4.00	4 980	133 449	26.80
1973–74	3 127	62 866	20.10	703	1 949	2.77	88 884	448 355	5.04	4 148	113 012	27.24
1974–75	4 143	95 610	23.07	662	1 439	2.17	78 557	375 969	4.79	3 335	95 247	28.56
1975–76	3 354	95 614	28.51	513	1 129	2.20	70 262	322 235	4.59	2 947	72 529	24.61
1976–77	3 705	112 269	30.30	587	1 330	2.27	69 730	334 961	4.80	2 741	71 781	26.19
1977–78	3 592	107 240	29.86	567	1 201	2.12	46 480	166 495	3.58	2 601	63 444	24.39
1978–79	3 646	124 385	34.12	578	1 457	2.52	65 835	295 464	4.49	2 693	85 230	31.65
1979–80	4 115	136 197	33.10	620	1 183	1.90	57 689	243 527	4.20	2 661	74 434	28.00
1980–81	4 335	155 965	35.97	672	1 558	2.32	61 555	241 817	3.93	2 758	76 033	27.57
1981–82	4 438	160 797	36.20	811	1 608	1.98	60 939	233 471	3.83	2 668	67 376	25.25
1982–83	4 749	173 147	36.50	889	1 589	1.80	48 588	157 117	3.20	2 545	69 421	27.30
1983–84	5 203	213 090	41.00	896	1 902	2.10	63 208	270 436	4.30	2 553	56 800	22.20
1984–85	5 209	203 472	39.1	869	1 341	1.54	51 667	212 544	4.10	2 588	61 624	23.81

(*a*) From 1980–81: total area.

(Chapter 15) Livestock Numbers: Production of Wool: Lambing, Tasmania

Year	Livestock (a)				Production of wool (a)			Lambing	
	Horses	Cattle	Sheep	Pigs	Number of sheep and lambs shorn	Average yield per sheep and lamb shorn (including crutchings)	Production of wool (including dead, fellmongered & exported on skins)	Ewes mated	Lambs marked
	'000	'000	'000	'000	'000	kg	'000 kg	'000	'000
1860	21	83	1 701	31			2 058		
1870	23	101	1 350	49			1 881		
1880	25	127	1 794	48			4 094		
1890	31	162	1 619	82	n.a.	n.a.	4 075	n.a.	n.a.
1900	32	166	1 684	68			3 064		
1910	41	202	1 788	64			6 050		
1920–21	39	208	1 571	38	1 551	2.94	5 218	416	299
1921–22	38	217	1 551	50	1 428	3.25	5 278	506	378
1922–23	37	218	1 558	46	1 503	3.26	5 542	524	411
1923–24	38	220	1 558	47	1 507	3.13	5 312	517	392
1924–25	37	226	1 614	47	1 630	3.16	5 662	557	423
1925–26	38	212	1 619	41	1 639	3.18	5 699	554	390
1926–27	37	213	1 808	39	1 738	2.93	5 594	563	433
1927–28	36	211	1 905	42	1 859	2.99	6 021	629	488
1928–29	35	209	2 001	48	1 902	3.22	6 759	640	502
1929–30	34	215	2 091	53	1 983	3.14	6 804	679	534
1930–31	33	230	2 120	55	1 961	3.11	6 713	695	547
1931–32	31	232	2 012	41	1 913	3.14	6 668	647	478
1932–33	30	251	2 041	41	1 940	3.16	6 895	679	526
1933–34	30	262	2 035	38	1 991	2.91	6 441	686	517
1934–35	31	262	2 038	40	1 976	2.90	6 366	672	497
1935–36	31	270	2 140	45	2 010	3.37	7 394	735	586
1936–37	31	262	2 234	40	1 106	2.72	6 381	791	594
1937–38	32	255	2 521	43	2 460	2.60	7 076	873	722
1938–39	30	262	2 626	45	2 432	3.03	7 946	940	737
1939–40	30	252	2 677	45	2 509	3.08	8 316	940	756
1940–41	29	259	2 682	47	2 517	2.78	7 746	988	764
1941–42	29	253	2 398	45	2 416	3.04	7 704	844	669
1942–43	27	245	2 227	49	2 293	2.98	7 827	785	655
1943–44	26	230	2 188	46	2 260	2.93	8 130	811	669
1944–45	26	225	2 156	47	2 235	2.79	7 404	756	629
1945–46	25	216	1 926	47	2 015	2.73	7 411	701	509
1946–47	24	220	1 933	47	2 005	3.04	7 549	577	440
1947–48	23	244	2 087	45	2 085	3.18	6 952	779	656
1948–49	22	266	2 160	37	2 198	3.09	7 641	803	662
1949–50	21	275	2 170	36	2 255	2.97	7 692	800	652
1950–51	20	272	2 182	45	2 245	2.99	7 824	774	637
1951–52	19	226	2 338	47	2 379	3.42	9 305	839	726
1952–53	18	275	2 422	39	2 502	3.19	8 984	894	768
1953–54	17	295	2 465	46	2 553	3.16	9 124	916	788
1954–55	16	319	2 595	58	2 715	3.53	10 794	968	884
1955–56	15	332	2 673	49	2 733	3.45	10 624	979	877
1956–57	14	354	2 943	52	3 082	3.78	13 009	1 150	1 056
1957–58	13	371	3 298	63	3 388	3.50	13 234	1 266	1 199
1958–59	12	374	3 536	69	3 673	3.57	14 803	1 381	1 269
1959–60	11	375	3 494	67	3 834	3.44	15 241	1 461	1 354
1960–61	9	394	3 439	71	3 678	3.44	14 456	1 378	1 267
1961–62	9	425	3 532	76	3 830	3.56	15 635	1 440	1 368
1962–63	8	444	3 570	70	3 783	3.64	15 677	1 419	1 310
1963–64	8	450	3 600	83	3 868	3.47	15 425	1 458	1 353
1964–65	7	451	3 792	92	3 978	4.06	17 994	1 478	1 374
1965–66	n.a.	492	4 127	96	4 318	3.88	18 986	1 651	1 594
1966–67	7	522	4 321	86	4 517	3.88	19 574	1 688	1 574
1967–68		564	4 428	87	4 572	3.34	17 376	1 779	1 522
1968–69	n.a.	586	4 395	95	4 632	4.09	21 299	1 736	1 561
1969–70		646	4 560	111	4 792	4.05	21 861	1 831	1 715
1970–71		733	4 517	113	4 806	3.99	21 671	1 889	1 705
1971–72		829	4 237	104	4 607	4.03	21 063	1 805	1 617
1972–73		900	3 824	85	4 251	3.76	18 154	1 604	1 369
1973–74		884	3 964	68	4 101	3.90	17 549	1 535	1 361
1974–75		921	4 136	64	4 153	4.12	18 888	1 644	1 466
1975–76	n.a.	909	4 249	70	4 352	4.13	19 951	1 677	1 515
1976–77		819	4 015	65	4 229	3.82	18 109	1 640	1 378
1977–78		733	3 969	64	4 242	4.00	18 294	1 672	1 529
1978–79		657	4 157	61	4 319	4.04	19 079	1 712	1 582
1979–80		649	4 245	63	4 550	4.00	20 003	1 861	1 706
1980–81	n.a.	659	4 381	54	4 627	3.91	20 049	1 892	1 674
1981–82		628	4 513	47	4 841	4.10	21 783	2 010	1 843
1982–83	7	559	4 451	51	4 901	4.04	21 680	2 035	1 853
1983–84	6	542	4 583	48	4 845	4.15	21 887	2 014	1 794
1984–85	6	554	4 780	47	5 000	4.10	21 935	2 100	1 908

(*a*) Up to 1925–26 numbers recorded were at varying dates in the years shown; from 1926 to 1940 at 31 December; from 1941–42 at 31 March.

(Chapter 15) Livestock Slaughtered (a) for Human Consumption, Tasmania

Year	Cattle and calves				Sheep and lambs			Pigs
	Bulls, bullocks & steers	Cows and heifers	Calves	Total	Sheep	Lambs	Total	
1924–25	21 068	12 544	2 542	36 154	212 983	63 134	276 117	55 229
1929–30	20 430	13 034	1 814	35 278	228 090	113 437	341 527	64 287
1939–40	32 685	12 110	3 633	48 428	248 372	212 585	460 957	73 398
1944–45	27 290	14 356	4 701	46 527	323 797	185 616	509 413	58 068
1949–50	29 331	23 736	4 580	57 647	245 691	262 360	508 051	50 861
1950–51	32 199	28 921	8 637	69 757	234 084	250 535	484 619	57 787
1951–52	33 352	29 506	8 729	71 587	226 377	256 116	482 493	65 893
1952–53	32 913	25 270	12 297	70 480	269 776	306 739	576 515	65 520
1953–54	22 630	25 188	13 955	61 773	286 665	307 326	593 991	59 473
1954–55	26 741	32 871	15 333	74 945	287 103	356 103	643 206	79 305
1955–56	32 259	36 370	19 786	88 415	256 188	388 802	644 990	87 609
1956–57	38 494	38 341	25 195	102 030	280 082	403 859	683 941	82 032
1957–58	42 028	45 294	30 534	117 856	283 242	451 214	734 456	90 593
1958–59	42 525	49 046	35 923	127 494	362 988	546 196	909 184	107 489
1959–60	47 147	56 885	40 548	144 580	504 961	661 470	1 166 431	114 538
1960–61	35 515	43 309	36 170	114 994	474 690	601 042	1 075 732	111 457
1961–62	42 614	48 638	44 230	135 482	510 626	649 306	1 159 932	120 450
1962–63	49 510	62 317	46 149	157 976	465 996	628 757	1 094 753	115 424
1963–64	51 518	70 885	53 823	176 226	544 945	582 113	1 127 058	123 502
1964–65	52 946	70 510	50 610	174 066	424 810	562 135	986 945	134 526
1965–66	47 066	60 664	46 514	154 244	566 671	597 197	1 163 868	146 266
1966–67	52 475	67 206	50 789	170 470	552 235	606 859	1 159 094	148 913
1967–68	57 871	66 016	47 872	171 759	600 124	524 850	1 124 974	142 986
1968–69	68 376	64 160	45 236	177 772	567 501	673 446	1 240 947	138 954
1969–70	78 618	66 473	32 765	177 856	608 311	688 664	1 296 975	160 112
1970–71	78 926	61 139	22 011	162 076	713 204	680 679	1 393 883	170 579
1971–72	96 255	69 186	19 346	184 787	812 960	662 193	1 475 153	165 007
1972–73	124 672	110 177	25 933	260 782	636 501	641 718	1 278 219	152 004
1973–74	126 251	103 552	29 554	259 357	335 566	489 697	825 263	115 625
1974–75	149 285	75 382	37 450	262 117	402 813	577 119	979 932	101 359
1975–76	164 059	119 418	64 536	348 013	454 912	613 611	1 068 532	94 090
1976–77	144 910	139 910	72 888	357 708	469 125	523 522	992 647	99 603
1977–78	160 977	132 802	68 686	362 465	386 772	650 067	1 036 839	92 474
1978–79	123 590	103 152	54 466	281 209	345 388	502 890	848 278	90 520
1979–80	95 600	83 000	39 500	218 100	316 900	613 200	930 100	88 700
1980–81	95 856	86 084	42 170	224 110	403 273	646 903	1 050 176	88 564
1981–82	106 569	91 491	53 830	251 890	451 978	690 711	1 142 689	77 163
1982–83	109 417	106 467	59 604	275 548	563 288	764 383	1 327 671	77 251
1983–84	80 367	73 236	46 398	200 001	418 917	756 941	1 175 858	80 224
1984–85	83 445	63 698	38 184	185 327	427 344	683 949	1 111 293	83 055

(*a*) Including livestock slaughtered on farms.

(Chapter 15) Value of Agricultural Commodities Produced, Tasmania ($ million)

Year	Crops (a)		Livestock slaughterings and other disposals		Livestock products		Total agriculture	
	Gross	Local	Gross	Local	Gross	Local	Gross	Local
1970–71	40.1	29.2	28.1	25.9	41.9	40.2	110.2	95.3
1971–72	33.7	24.0	31.5	29.0	47.0	45.1	112.2	98.1
1972–73	40.0	28.3	43.6	40.4	64.8	61.7	148.4	130.3
1973–74	46.6	37.0	58.0	54.0	60.0	57.3	164.7	148.2
1974–75	49.4	39.7	31.7	29.1	56.5	53.1	137.6	121.9
1975–76	43.0	35.2	34.1	31.0	60.7	57.0	137.7	123.3
1976–77	55.7	48.7	46.1	42.2	72.1	68.2	173.9	159.1
1977–78	54.0	47.8	54.8	47.9	76.1	72.2	184.8	167.9
1978–79	76.9	68.8	91.7	80.2	86.7	82.7	255.4	231.6
1979–80	70.4	61.7	100.3	87.4	93.7	89.0	264.4	238.0
1980–81	80.3	71.1	94.1	82.4	100.2	95.1	274.6	248.6
1981–82	92.3	81.4	90.2	78.8	117.7	112.7	300.2	272.9
1982–83	106.3	93.8	100.7	87.9	131.5	126.3	340.4	309.4
1983–84	134.0	121.3	95.6	83.2	126.9	121.0	356.4	325.6
1984–85	131.7	116.0	115.3	106.6	135.1	130.2	382.2	352.8

(*a*) Excludes crops and pasture harvested for green feed or silage.

(Chapter 15) Production of Meat, Tasmania (Tonnes: Carcass Weight)

Year	Beef and veal			Mutton and lamb			Pigmeat (a)	Total
	Beef	Veal	Total	Mutton	Lamb	Total		
1924–25		8 233	8 233	4 154	888	5 042	2 561	15 836
1929–30		8 153	8 153	4 448	1 595	6 043	2 848	17 044
1939–40	10 626	165	10 791	4 845	2 989	7 834	3 560	22 185
1949–50	12 299	169	12 468	4 896	4 173	9 069	2 597	24 134
1955–56	15 133	530	15 663	5 260	6 707	11 967	3 693	31 323
1956–57	17 592	612	18 204	5 812	6 998	12 810	3 402	34 416
1957–58	19 635	726	20 361	5 694	7 739	13 433	4 284	38 078
1958–59	19 893	839	20 732	7 444	9 223	16 667	4 990	42 389
1959–60	22 610	906	23 516	10 267	10 846	21 113	5 438	50 067
1960–61	16 388	777	17 165	9 513	9 715	19 228	5 138	41 531
1961–62	19 076	910	19 989	10 228	10 326	20 554	5 515	46 058
1962–63	23 076	999	24 075	9 614	10 083	19 697	5 549	49 321
1963–64	24 988	1 337	26 325	11 101	9 300	20 401	6 022	52 748
1964–65	25 741	951	26 692	9 225	9 189	18 414	6 691	51 797
1965–66	22 429	951	23 380	11 697	9 739	21 436	7 136	51 952
1966–67	24 124	967	25 091	11 412	9 825	21 237	7 279	53 607
1967–68	24 509	977	25 486	11 666	8 497	20 163	7 001	52 650
1968–69	27 583	802	28 385	11 701	11 112	22 813	7 137	58 335
1969–70	30 909	599	31 509	12 767	11 282	24 049	8 007	63 564
1970–71	29 481	398	29 879	14 755	11 318	26 073	8 530	64 482
1971–72	34 422	374	34 796	16 314	10 875	27 189	8 266	70 251
1972–73	46 946	525	47 471	12 201	10 327	22 528	7 389	77 388
1973–74	45 669	613	46 282	6 672	8 096	14 768	5 477	66 527
1974–75	47 592	721	48 313	7 984	9 508	17 492	4 872	70 677
1975–76	57 924	1 242	59 166	8 997	9 849	18 846	4 516	82 529
1976–77	55 790	1 613	57 403	8 494	8 189	16 683	4 946	79 032
1977–78	59 779	1 556	61 335	7 035	9 849	16 884	4 785	83 004
1978–79	46 269	1 152	47 421	6 833	7 883	14 716	4 834	66 971
1979–80	36 561	835	37 396	5 656	9 017	14 673	4 862	56 931
1980–81	36 812	924	37 736	7 420	9 976	17 396	4 767	59 899
1981–82	40 561	1 266	41 827	8 492	10 647	19 139	4 262	65 228
1982–83	43 518	1 376	44 894	10 364	11 840	22 204	4 196	71 294
1983–84	31 374	960	32 334	8 177	11 745	19 922	4 315	56 572
1984–85	30 821	880	31 701	8 297	10 701	18 998	4 752	55 451

(*a*) Includes pork for manufacture into bacon and ham.

(Chapter 15) Weighted Average Prices Paid to Farmers Per Unit of Selected Farm Products, Tasmania ($ per tonne)

Year	Cereal for grain		Hops	Orchard fruit		Small fruit		Vegetables		Wool, greasy
	Wheat	Barley		Apples	Pears	Currants	Raspberries	Potatoes	Peas	
1929–30	18	15	198	17	23	40	40	13	n.a.	220
1934–35	12	13	309	28	28	40	40	17	n.a.	200
1939–40	12	17	331	23	25	70	70	18	n.a.	260
1944–45	18	23	397	20	20	90	70	25	n.a.	350
1949–50	50	32	772	64	73	130	130	30	n.a.	1 320
1954–55	50	74	1 213	101	114	180	180	79	30	1 410
1959–60	51	59	1 389	99	100	220	200	39	28	1 150
1960–61	51	63	1 367	102	126	260	180	89	31	1 060
1961–62	59	64	1 433	104	87	260	220	52	26	1 080
1962–63	54	61	1 433	112	122	240	220	25	60	1 210
1963–64	53	63	1 433	107	111	260	220	64	115	1 480
1964–65	49	61	1 499	113	129	220	220	116	103	1 080
1965–66	51	58	1 565	100	68	200	220	37	96	1 230
1966–67	53	63	1 653	124	119	240	240	54	108	1 120
1967–68	54	66	1 698	110	102	290	310	48	117	960
1968–69	42	57	1 698	107	124	290	330	29	111	1 050
1969–70	53	52	1 698	110	136	310	330	46	99	880
1970–71	48	51	1 698	103	134	330	350	42	119	740
1971–72	54	47	1 874	103	117	330	350	37	115	1 900
1972–73	52	52	1 961	121	174	350	350	57	106	2 290
1973–74	104	77	1 649	121	117	390	410	87	116	1 920
1974–75	104	92	860	149	181	470	530	59	131	1 370
1975–76	97	99	1 395	173	171	500	500	77	147	1 570
1976–77	82	111	1 695	165	195	550	580	83	156	2 100
1977–78	86	121	1 957	202	261	700	740	83	158	2 090
1978–79	109	122	2 202	195	248	720	870	102	158	2 340
1979–80	128	124	2 553	223	284	780	950	104	159	2 700
1980–81	139	150	3 002	220	352	800	1 080	110	177	2 770
1981–82	136	162	3 183	281	331	666	1 173	116	223	2 820
1982–83	139	182	4 355	369	446	549	915	130	243	2 717
1983–84	159	171	4 980	401	553	654	896	134	245	2 958
1984–85	162	169	5 157	439	536	574	1 069	135	263	3 343

(Chapter 16) Assayed Contents of Metallic Minerals Produced: Coal Production, Tasmania

Year	Cadmium	Copper	Gold	Iron	Lead	Manganese
	tonnes	tonnes	kg	tonnes	tonnes	tonnes
1953	73	9 045	528	—	10 199	—
1955	50	8 529	525	—	11 448	—
1960	57	11 867	747	—	13 249	175
1961	63	12 947	836	—	12 450	188
1962	73	14 748	999	—	14 991	268
1963	75	17 075	1 133	—	15 222	262
1964	78	15 118	1 069	—	15 594	247
1965	71	15 411	1 023	—	14 466	237
1966	76	17 278	1 135	—	15 828	258
1967	74	17 540	1 167	—	15 375	247
1968	75	16 867	1 135	502 462	15 152	250
1969	77	18 983	1 252	1 388 328	15 145	258
1970	70	23 934	1 335	1 346 065	13 934	209
1971	84	25 525	1 793	1 497 486	16 167	509
1972	138	28 298	2 021	1 623 450	26 806	2 205
1973	178	25 821	1 511	1 678 146	20 236	2 399
1974	126	29 086	1 586	1 514 373	19 017	385
1975	167	26 460	1 668	1 431 041	19 552	265
1976	157	25 342	1 495	1 542 306	18 034	232
1977	199	22 002	1 891	1 413 476	22 800	427
1978	188	23 908	1 912	1 446 024	22 754	341
1979	188	22 591	1 747	1 528 225	22 160	269
1980	119	23 013	1 311	1 472 923	15 511	198
1981	181	22 402	1 950	1 543 938	25 517	249
1982	197	20 906	1 737	1 442 056	30 619	281
1983	207	27 516	2 077	1 533 922	34 777	282
1984	204	25 569	1 922	1 393 118	32 493	290

Year	Silver	Sulphur	Tin	Tungstic oxide (WO3)	Zinc	Coal production
	kg	tonnes	tonnes	tonnes	tonnes	tonnes
1953	38 599	42 516	801	1 069	30 247	237 370
1955	36 267	38 857	867	1 358	28 396	304 023
1960	43 483	55 636	898	1 115	35 069	302 448
1961	45 162	53 128	893	1 543	40 735	259 934
1962	52 876	37 145	1 075	1 052	48 687	276 713
1963	52 969	42 997	1 021	975	49 267	210 243
1964	55 364	57 004	1 006	1 009	50 960	153 587
1965	52 192	54 840	1 043	1 196	47 053	104 101
1966	57 013	63 804	1 047	1 327	50 651	83 990
1967	55 955	62 470	1 553	1 202	49 641	77 769
1968	54 400	53 926	3 154	1 425	48 919	92 389
1969	54 213	47 449	4 853	1 524	50 898	117 794
1970	53 343	84 502	5 018	1 434	46 922	113 529
1971	63 389	109 046	6 166	1 742	52 749	123 922
1972	99 251	164 884	6 825	1 918	85 580	132 242
1973	76 903	160 971	5 674	1 502	63 792	114 588
1974	80 180	153 767	5 950	1 304	65 311	127 460
1975	76 401	152 884	5 489	1 712	67 476	161 922
1976	71 310	154 008	6 853	2 202	62 004	189 489
1977	84 772	163 486	6 634	2 534	78 405	198 966
1978	86 193	148 966	7 270	2 630	77 388	223 957
1979	76 662	84 422	6 892	2 522	75 279	237 380
1980	57 159	41 227	6 234	2 914	54 273	234 175
1981	78 177	53 683	7 057	2 983	74 413	345 951
1982	84 697	59 575	8 009	1 975	79 493	514 986
1983	94 929	60 409	5 356	1 382	82 285	472 625
1984	93 209	60 295	4 172	1 107	83 403	457 984

Fisheries, Tasmania

Year	Boats engaged (a)	Persons engaged (a)	Production (b)							Gross value of production (c)
			Fish				Southern rock lobster	Scallops	Abalone	
			Snoek (barracouta)	Salmon	Shark	Other				
	no.	no.	'000 kg	'000 kg	'000 kg	'000 kg	'000 kg	'000 kg	'000 kg	$'000
1951–52			1 580	50	392	319	852	738	—	882
1952–53			1 819	61	1 010	231	1 222	1 465	—	1 210
1953–54	n.a.	n.a.	362	173	506	238	1 006	1 714	—	864
1954–55			673	195	301	243	1 313	2 452	—	1 112
1955–56			576	116	291	170	1 108	2 625	—	1 012
1956–57	472	958	1 100	33	235	180	954	2 664	—	1 216
1957–58	458	907	414	60	384	128	1 088	1 888	—	1 016
1958–59	438	923	644	93	360	171	1 250	2 148	—	1 328
1959–60	469	968	711	147	413	167	1 329	2 043	—	1 612
1960–61	478	1 072	373	545	439	166	1 436	2 402	—	1 920
1961–62	514	1 122	935	1 325	451	128	1 554	2 164	—	2 294
1962–63	511	1 208	512	528	377	155	1 501	2 663	—	2 254
1963–64	507	1 191	639	385	370	160	1 620	1 932	49	2 203
1964–65	503	957	915	227	299	209	1 513	1 323	225	2 686
1965–66	596	1 154	1 362	196	493	212	1 787	394	726	3 300
1966–67	618	1 200	1 037	427	455	270	1 946	341	1 999	3 653
1967–68	585	1 118	1 624	343	685	300	1 752	225	2 786	4 473
1968–69	566	1 160	1 401	174	947	248	1 700	125	2 108	4 864
1969–70	553	1 123	1 578	67	801	219	1 390	50	2 608	4 043
1970–71	529	1 090	610	201	793	335	1 607	—	3 488	5 984
1971–72	588	1 207	581	507	859	433	1 469	52	2 971	6 808
1972–73	589	1 235	915	461	497	392	1 583	515	2 172	5 739
1973–74	594	1 268	598	371	1 187	7 728	1 514	1 158	2 060	7 014
1974–75	616	1 343	760	631	651	828	1 525	1 261	2 108	6 928
1975–76	607	1 347	143	473	1 238	375	1 229	690	2 429	8 511
1976–77	640	1 439	37	573	1 130	413	1 117	498	2 368	11 662
1977–78	655	1 466	194	611	1 710	590	1 192	400	2 525	12 609
1978–79	727	1 620	38	451	1 490	626	1 305	1 077	3 100	14 636
1979–80	760	1 687	7	283	1 210	688	1 340	3 829	1 314	20 463
1980–81	781	1 678	2	200	1 288	1 037	1 553	3 359	3 743	26 514
1981–82	n.a.	n.a.	1	417	1 086	994	1 713	7 577	4 194	32 896
1982–83	n.a.	n.a.	2	211	793	841	1 887	11 573	2968	31 140
1983–84	n.a.	n.a.	16	137	614	623	1 805	8 702	4 769	39 133
1984–85	n.a.	n.a.	4	443	1 121	6 934	1 916	2 301	4 215	47 036

(*a*) Year ended December of the first year named.
(*b*) Landed at Tasmanian ports, estimated live weight.
(*c*) Includes crabs, squid, oysters and seaweed.

(Chapter 18) Economic Censuses: Manufacturing, Tasmania (*a*)

Year (b)	Establishments operating at 30 June	Employment (average over whole year) (c)			Wages and salaries	Turnover (d)	Purchases, transfer in and selected expenses (e)	Value added (f)	Fixed capital expenditure (g)
		Males	Females	Persons					
	no.	no.	no.	no.	$'000	$'000	$'000	$'000	$'000
1968–69	951	24 892	6 182	31 074	95 065	487 109	301 739	197 464	35 080
1969–70	945	25 371	6 389	31 760	102 104	541 636	317 546	226 083	49 443
1971–72	933	24 856	6 151	31 007	119 411	595 612	359 300	245 068	25 944
1972–73	912	24 668	6 016	30 684	130 703	678 763	394 628	283 420	24 893
1973–74	935	25 203	6 324	31 527	161 386	818 049	494 785	340 250	24 798
1974–75	628	23 699	5 153	28 852	194 883	905 656	558 632	402 255	53 146
1975–76	667	22 827	4 926	27 753	211 327	1 029 579	577 393	456 029	43 936
1976–77	617	23 042	4 724	27 766	246 014	1 199 311	694 445	533 288	34 472
1977–78	599	22 022	4 944	26 966	258 341	1 245 979	742 171	497 979	47 243
1978–79	552	21 386	4 680	26 066	266 099	1 401 463	861 690	549 372	77 116
1979–80	543	21 520	4 638	26 158	298 196	1 656 092	1 045 867	653 770	55 933
1980–81	558	21 942	4 586	26 528	346 551	1 867 080	1 175 515	713 445	60 208
1981–82	555	21 345	4 464	25 809	370 167	1 898 046	1 237 455	713 091	84 417
1982–83	528	19 597	4 488	24 085	387 714	1 968 504	1 260 435	695 135	45 035
1983–84	556	19 640	4 416	24 056	406 507	2 196 360	1 373 650	828 970	58 151

(*a*) Details are not comparable with those contained in the table: 'Manufacturing, Tasmania'
(*b*) No census was conducted in 1970–71. From 1974–75 figures exclude details for single establishment enterprises with less than four persons employed.
(*c*) Includes working proprietors and employees at separately located administrative and ancillary units.
(*d*) Turnover *plus* increase (or *less* decrease) in the value of stocks *less* purchases, transfers in and selected expenses.
(*e*) Includes transfers in of goods from other establishments of the enterprise, charges for commission and sub-contract work, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.
(*f*) Comprises sales of goods, transfers out of goods to establishments of the same enterprise, bounties and subsidies on production, all other operating revenue from outside the enterprise and capital work done for own use, rental or lease.
(*g*) Outlay on fixed tangible assets *less* disposals.

(Chapter 18) **Principal Articles Produced in Factories, Tasmania**

Year	Foodstaffs					Refined zinc
	Butter (a)	Cheese (factory and farm) (b)	Bacon and ham (cured weight) (c)	Flour (incl. wheatmeal for baking)	Aerated waters	
	tonnes	tonnes	tonnes	tonnes	'000 litres	tonnes
1939–40	5 380	1 470	1 313	17 137	1 650	74 012
1949–50	5 614	428	1 007	24 714	4 510	85 122
1959–60	12 079	372	1 162	28 007	8 356	119 785
1960–61	10 552	399	1 138	26 388	8 656	127 957
1961–62	12 376	641	1 149	26 356	8 828	131 140
1962–63	13 405	681	1 201	26 442	9 683	138 391
1963–64	13 984	1 358	1 185	24 868	9 938	140 835
1964–65	14 218	2 388	1 190	25 367	10 310	141 006
1965–66	14 229	2 989	1 079	25 022	11 111	146 221
1966–67	14 541	3 822	1 262	24 470	11 583	146 227
1967–68	13 999	4 724	1 302	23 957	12 029	131 872
1968–69	16 017	5 820	1 416	23 826	12 644	151 094
1969–70	16 343	5 407	1 403	21 947	13 354	170 931
1970–71	15 273	5 556	1 803	22 264	14 049	162 271
1971–72	15 318	5 923	1 984	22 488	14 402	175 798
1972–73	12 947	7 218	1 902	31 698	15 236	193 782
1973–74	12 398	8 475	1 931	34 643	15 751	182 749
1974–75	12 196	12 387	2 169	34 938	14 845	152 749
1975–76	10 762	13 332	2 356	30 691	16 219	137 637
1976–77	9 707	13 156	2 434	32 427	18 786	170 685
1977–78	7 910	13 903	2 505	32 780	20 082	161 173
1978–79	7 075	17 494	2 457	34 901	19 834	204 623
1979–80	5 490	15 328	2 094	37 269	18 361	191 683
1980–81	4 234	14 147	2 375	37 811	19 397	188 471
1981–82	3 964	15 167	2 634	35 068	19 108	193 714
1982–83	5 768	14 100	2 661	n.p.	n.p.	185 482
1983–84	6 191	14 080	2 519	n.p.	16 623	187 399
1984–85	7 690	12 567	2 963	n.p.	16 755	196 576

Principal Articles Produced in Factories, Tasmania — *continued*

Year	Chemicals, fertilisers, etc.			Sawn, peeled and sliced timber (d)	Miscellaneous	
	Sulphuric acid	Super-phosphate	Sulphate of ammonia		Newsprint	Electricity (e)
	tonnes	tonnes	tonnes	'000 m^3	tonnes	m k Wh
1939–40	14 552	33 337	—	189.7	—	612
1949–50	42 747	69 943	—	298.2	30 961	1 062
1954–55	70 676	77 034	—	331.3	74 789	1 589
1959–60	129 077	104 260	58 525	400.4	89 931	2 532
1960–61	137 178	106 285	62 574	388.3	89 452	2 632
1961–62	138 636	121 143	62 319	351.6	91 199	2 733
1962–63	142 227	127 426	53 274	377.2	91 693	3 213
1963–64	161 381	134 233	43 506	403.2	93 516	3 409
1964–65	184 936	132 445	60 772	420.2	94 637	3 780
1965–66	198 551	162 441	65 135	421.2	94 707	3 896
1966–67	211 201	166 757	58 422	411.5	98 816	4 116
1967–68	185 303	145 968	13 086	413.5	94 135	3 773
1968–69	206 474	140 340	40 324	414.4	125 924	4 738
1969–70	266 449	133 245	40 563	413.7	173 314	5 140
1970–71	387 193	105 323	40 252	406.1	178 683	5 451
1971–72	558 658	104 763	41 358	412.8	181 477	5 778
1972–73	652 513	177 192	48 654	416.3	199 053	5 902
1973–74	570 156	180 458	33 191	414.3	200 852	6 010
1974–75	517 052	103 253	54 701	410.2	196 240	6 095
1975–76	466 817	57 896	23 040	373.5	206 228	6 008
1976–77	506 338	101 281	12 291	368.1	206 590	6 842
1977–78	522 154	97 012	5 292	338.5	207 621	7 179
1978–79	414 644	151 489	6 045	320.6	208 143	7 748
1979–80	302 550	132 783	1 213	355.2	221 460	7 903
1980–81	253 547	139 869	969	373.9	214 400	8 044
1981–82	335 507	126 416	..	327.2	219 429	8 122
1982–83	292 323	104 324	913	248.1	222 934	7 978
1983–84	318 492	108 216	2 643	r 290.1	219 006	8 144
1984–85	351 153	127 047	2 065	314.5	212 436	8 279

(*a*) Includes butter equivalent of butter oil and from 1965–66 excludes farm production.
(*b*) Source: Tasmanian Department of Agriculture up to 1978–79; Australian Dairy Corporation from 1979–80.
(*c*) Includes non-factory production. From July 1970 all weights are on a bone-in basis; earlier figures include an element of unconverted bone-out weights.
(*d*) Includes hardwood and softwood.
(*e*) Mainly output of Hydro-Electric Commission.

(NOTE: Details of production of a number of important articles cannot be published because of confidentiality.)

(Chapter 18) Manufacturing, Tasmania

Year	Number of factories at end of year	Employment (a)			Salaries and wages paid (b) ($'000)	Value of materials used ($'000)	Value of output (c) ($'000)	Value of production (d) ($'000)	Land and buildings ($'000)	Plant and machinery ($'000)
		Males	Females	Persons						
1910	635	8 277	1 703	9 980	n.a.	n.a.	n.a.	n.a.	2 044	2 092
1915	589	7 161	1 259	8 420	1 567	4 387	8 431	3 823	2 265	2 457
1920	616	8 746	1 479	10 225	2 960	8 469	14 304	5 525	1 963	3 863
1924–25	675	9 016	1 982	10 998	3 776	6 885	15 685	7 251	4 209	13 457
1929–30	845	8 547	2 273	10 820	4 056	8 025	17 121	7 124	5 994	13 894
1934–35	926	8 321	2 234	10 555	3 204	6 260	14 446	6 316	5 390	12 138
1939–40	980	11 754	2 916	14 670	5 372	10 821	25 987	12 506	7 551	13 576
1940–41	1 002	12 341	3 498	15 839	6 119	12 377	27 735	12 584	8 474	15 098
1945–46	1 082	15 105	4 130	19 235	10 013	20 616	44 239	18 391	10 609	16 461
1946–47	1 169	16 186	3 751	19 937	11 276	22 650	49 139	21 335	11 356	17 000
1947–48	1 225	17 208	3 965	21 173	13 731	27 311	57 569	24 489	12 543	19 832
1948–49	1 346	18 508	4 094	22 602	16 913	34 319	73 314	32 149	14 670	24 507
1949–50	1 456	19 302	4 204	23 506	19 293	43 468	90 160	38 671	17 299	27 456
1950–51	1 486	19 454	4 373	23 827	23 475	58 290	117 249	49 229	20 701	34 312
1951–52	1 512	19 934	4 093	24 027	29 407	71 804	143 853	59 588	24 999	41 181
1952–53	1 504	19 621	3 874	23 495	31 953	67 333	142 007	60 997	29 925	45 240
1953–54	1 545	20 249	4 340	24 589	34 763	74 851	155 822	66 129	53 993	54 984
1954–55	1 597	21 045	4 407	25 452	37 727	84 930	177 202	76 228	59 206	59 758
1955–56	1 594	22 128	4 934	27 062	43 196	95 882	207 558	91 862	93 158	80 849
1956–57	1 595	22 482	5 188	27 670	47 273	101 274	220 780	97 365	112 946	89 672
1957–58	1 655	23 081	5 003	28 084	50 641	100 582	227 651	103 660	118 906	93 719
1958–59	1 666	23 504	4 920	28 424	51 656	103 093	236 587	108 602	123 660	96 451
1959–60	1 683	24 408	5 254	29 662	57 573	119 822	268 050	120 392	144 024	107 315
1960–61	1 766	24 811	5 347	30 158	60 659	122 508	275 902	124 892	147 099	112 632
1961–62	1 760	24 742	5 328	30 070	61 440	126 128	283 547	127 874	159 149	121 589
1962–63	1 764	25 453	5 302	30 755	64 837	131 100	303 920	142 033	163 919	138 159
1963–64	1 746	26 221	5 612	31 833	70 582	154 613	341 065	152 571	168 403	141 651
1964–65	1 805	26 768	5 812	32 580	76 515	175 920	381 549	167 251	209 010	155 336
1965–66	1 792	28 041	6 274	34 315	82 963	188 678	404 581	175 606	211 923	158 672
1966–67	1 771	28 364	6 515	34 879	90 756	201 027	437 964	194 571	233 983	169 159
1967–68	1 797	28 550	6 628	35 178	96 236	203 084	445 076	198 019	263 364	184 683

(a) Commencing with 1927–28, the number of persons employed is the average over the *whole* year; prior to the date the number represents the average over the period of operation.
(b) Excludes amounts drawn by working proprietors.
(c) Value of goods manufactured and work done.
(d) Value of output less recorded costs of manufacture other than labour.

(Chapter 19) Building Approvals, Tasmania

Year	New houses		Other new dwellings		Total new dwellings		Alterations and additions to dwellings Value (a)	Other building Value	Total all building Value
	No.	Value	No.	Value	No.	Value			
		$'000		$'000		$'000	$'000	$'000	$'000
1959–60	2 546	16 134	187	926	2 733	17 060		22 099	39 159
1960–61	2 273	15 190	152	895	2 425	16 085		14 454	30 539
1961–62	2 527	16 486	119	467	2 646	16 953		20 851	37 804
1962–63	2 471	16 542	173	814	2 644	17 356		20 060	37 416
1963–64	2 648	18 845	165	886	2 813	19 731		14 790	34 521
1964–65	2 669	20 209	252	1 413	2 921	21 622		23 250	44 872
1965–66	2 428	19 083	218	1 355	2 646	20 438		28 432	48 870
1966–67	3 218	25 777	227	1 476	3 445	27 253		26 340	53 593
1967–68	3 309	30 083	425	2 522	3 734	32 605	n.a.	39 414	72 019
1968–69	2 694	25 893	438	2 904	3 132	28 797		23 494	52 291
1969–70	2 656	26 631	781	5 545	3 437	32 176		27 358	59 534
1970–71	2 581	26 618	610	4 036	3 191	30 654		37 337	67 991
1971–72	2 484	28 430	909	6 773	3 393	35 203		34 879	70 083
1972–73	3 058	39 454	768	6 393	3 826	45 847		44 574	90 421
1973–74	3 282	51 798	893	8 771	4 175	60 569	797	39 353	100 719
1974–75	2 627	51 460	732	9 678	3 359	61 138	1 163	50 433	112 736
1975–76	3 380	82 908	1 056	18 715	4 436	101 623	2 326	56 441	160 390
1976–77	3 314	89 367	1 088	21 159	4 402	110 526	3 877	86 160	200 562
1977–78	2 778	78 138	911	17 959	3 689	96 097	4 817	86 816	187 729
1978–79	2 834	83 429	810	17 779	3 644	101 208	5 089	77 119	183 416
1979–80	2 511	81 479	804	17 165	3 315	98 644	5 828	91 442	195 912
1980–81	2 327	81 713	873	19 992	3 200	101 705	6 950	73 190	181 845
1981–82	1 989	72 285	741	18 051	2 730	90 336	7 786	90 371	188 493
1982–83	2 057	76 438	670	17 111	2 727	93 549	7 653	62 242	163 444
1983–84	2 918	117 045	769	22 215	3 687	139 260	10 268	80 150	229 678
1984–85	3 415	155 001	955	31 252	4 370	186 253	13 191	141 816	341 260

(a) Prior to 1973–74, alterations and additions valued at $10 000 or more to dwellings were inlcuded with the number and value of dwellings.

(Chapter 19) Summary of Dwellings at Census Dates, Tasmania

Particulars		Date of Census							
		April 1921	*June 1933*	*June 1947*	*June 1954*	*June 1961*	*June 1966*	*June 1971*	*June 1976*	*June 1981*
Dwellings (including hotels, boarding houses, flats, etc.) —										
Occupied	no.	45 818	52 484	62 484	78 789	91 528	99 366	110 483	122 573	136 269
Unoccupied	no.	2 934	2 421	2 531	5 288	8 582	10 800	13 302	15 786	17 765
Total	no.	48 752	54 905	64 835	84 077	99 840	110 166	123 785	138 359	154 034
Average inmates per occupied dwelling	no.	4.67	4.34	4.11	3.92	3.84	3.74	3.53	3.29	3.07
Occupied private dwellings according to —										
Class of dwelling —										
Private house (including share) (*a*)	no.	42 028	48 479	58 937	74 244	83 736	90 131	99 401	100 534	119 573
Flat (including apartment)	no.	2 404	2 831	2 604	2 534	5 574	7 058	8 417	21 298	16 025
Other	no.			461	869	888	1 093	1 785		
Total	no.	44 432	51 310	61 462	77 647	90 198	98 282	109 603	121 832	135 598
Nature of occupancy —										
Owner	no.	16 851	20 404	28 377	38 436	42 896	67 855	73 267	38 852	44 740
Purchaser by instalments	no.	4 364	3 986	4 140	9 810	19 006			44 432	44 977
Tenant	no.	19 037	22 734	26 077	26 991	25 938	25 597	30 583	29 638	33 909
Other methods of occupancy (including not stated)	no.	4 180	4 186	2 868	2 410	2 358	5 000	5 753	8 910	11 972

(*a*) Separate house for 1976.

(Chapter 19) Value of Building: Commenced, Completed and Under Construction, Tasmania ($'000)

Year	Building approvals	Building construction								
		Commenced			Completed			Under construction at 30 June		
		New dwellings	*Other building*	*Total all building*	*New dwellings*	*Other building*	*Total all building*	*New dwellings*	*Other building*	*Total all building*
1946–47	6 726	3 728	1 708	5 436	2 308	526	2 834	3 614	1 904	5 518
1947–48	8 358	5 256	1 958	7 214	3 492	1 066	4 558	5 532	2 760	8 292
1948–49	11 742	7 960	2782	10 742	6 042	1 578	7 620	7 670	4 074	11 744
1949–50	16 740	11 702	5 056	16 758	8 426	2 258	10 684	11 368	6 612	17 980
1950–51	21 694	15 000	5 672	20 672	13 508	3 298	16 806	14 250	10 106	24 356
1951–52	20 042	15 360	6 766	22 126	16 414	4 608	21 022	14 504	13 036	27 540
1952–53	15 984	10 664	2 558	13 222	15 252	6 078	21 330	10 608	10 380	20 988
1953–54	21 646	13 552	4 896	18 448	13 520	5 864	19 384	11 532	12 032	23 564
1954–55	25 612	15 244	6 428	21 672	13 092	8 206	21 298	13 992	10 806	24 798
1955–56	25 074	13 842	5 936	19 778	15 138	10 458	25 596	13 230	6 498	19 728
1956–57	30 964	15 138	13 138	28 276	16 434	8 784	25 218	12 420	11 750	24 170
1957–58	27 232	14 980	10 486	25 466	15 844	9 836	25 680	11 866	12 026	23 892
1958–59	27 592	16 662	12 156	28 818	15 986	10 914	26 900	12 742	13 364	26 106
1959–60	39 159	15 834	20 652	36 486	16 570	15 036	31 606	12 026	19 156	31 182
1960–61	30 539	15 936	12 344	28 280	17 206	16 822	34 028	10 912	15 016	25 928
1961–62	37 804	17 026	18 360	35 386	16 630	16 824	33 454	11 136	16 640	27 776
1962–63	37 416	16 668	17 944	34 612	16 892	17 240	34 128	10 912	17 500	28 412
1963–64	34 521	18 944	15 720	34 664	18 070	15 906	33 976	11 764	17 330	29 094
1964–65	44 872	20 922	21 118	42 040	20 060	17 684	37 744	12 628	20 738	33 366
1965–66	48 870	19 200	24 589	43 789	19 010	20 670	39 680	12 761	24 651	37 412
1966–67	53 593	25 869	36 208	62 070	23 230	24 986	48 218	15 394	35 875	51 269
1967–68	72 021	29 791	33 359	63 153	30 078	31 805	61 881	15 095	37 411	52 504
1968–69	52 291	28 011	28 191	56 202	28 142	28 807	56 947	14 634	37 262	51 896
1969–70	59 534	32 326	29 805	62 131	32 170	34 282	66 452	14 675	36 347	51 022
1970–71	67 991	32 233	37 956	70 189	29 275	30 409	59 684	17 906	45 559	63 465
1971–72	70 083	32 219	32 100	64 319	31 699	38 018	69 717	19 262	42 374	61 636
1972–73	90 421	43 328	47 279	90 607	36 190	41 915	78 105	27 418	49 104	76 522
1973–74 (*a*)	100 719	57 579	49 546	107 125	48 259	40 687	88 946	38 416	58 947	97 363
1974–75	112 736	59 641	53 539	113 180	58 182	41 311	99 493	42 436	73 883	116 319
1975–76	160 390	94 481	62 360	156 840	77 130	67 979	145 109	65 067	75 427	140 494
1976–77	200 562	100 636	77 938	178 574	102 888	71 674	174 563	67 915	85 758	153 674
1977–78	187 729	95 941	96 314	192 255	105 701	87 319	193 019	61 583	99 732	161 316
1978–79	183 416	105 265	106 141	211 406	99 460	74 968	174 427	73 161	133 694	206 854
1979–80	195 912	95 771	82 821	178 591	106 452	111 180	217 633	62 278	117 250	179 529
1980–81	181 845	109 700	99 727	209 400	111 600	122 815	234 400	56 800	109 916	166 700
1981–82	188 493	88 800	92 800	181 600	93 500	98 000	191 400	48 500	106 100	154 500
1982–83	163 444	80 900	78 500	159 500	79 000	111 100	190 100	49 500	71 300	120 700
1983–84	229 678	122 000	80 000	202 000	107 300	105 500	212 900	63 600	46 400	110 000
1984–85	341 260	171 700	130 200	301 900	149 800	84 800	234 600	85 600	96 600	182 100

(*a*) Alterations and additions to dwellings valued at $10 000 and over are included with the value of dwellings up to 1972–73 but excluded thereafter: from 1973–74 the value of alterations and additions to dwellings valued at $10 000 and over is included with 'other builidng'.

(Chapter 20) Consumer Price Index Numbers, Hobart (a)

Year	Food	Clothing	Housing	Household equipment and operation	Transport ation	Tobacco and alcohol	Health and personal care	Recreation and education	All groups	
									Index no.	Increase per cent (b)
1949–50	13.2	17.6	12.1						14.8	6.5
1954–55	23.9	26.5	18.4						24.0	—
1959–60	26.5	28.8	24.6						27.6	1.8
1960–61	29.5	29.2	26.0	n.a.	n.a.	n.a.	n.a.	n.a.	29.1	5.4
1961–62	28.8	29.6	27.1						29.3	0.7
1962–63	28.4	29.8	28.0						29.3	—
1963–64	28.4	29.9	28.8						29.6	1.0
1964–65	30.0	30.3	30.0						30.5	3.0
1965–66	31.6	30.7	30.8						31.6	3.6
1966–67	32.0	31.3	31.7	34.9	31.1	32.2			32.3	2.2
1967–68	34.1	32.0	32.9	36.2	32.4	32.9	n.a.		33.7	4.3
1968–69	33.6	32.7	34.4	37.0	33.6	33.8			34.2	1.5
1969–70	34.0	33.8	35.7	37.5	34.6	34.5	29.1		35.0	2.3
1970–71	35.0	35.0	37.2	38.7	36.1	37.2	29.3		36.3	3.7
1971–72	36.1	37.1	39.4	41.7	39.4	40.1	34.0		38.7	6.6
1972–73	38.3	39.3	41.8	43.2	41.1	43.4	35.7		40.9	5.7
1973–74	45.2	44.5	46.6	46.4	43.4	49.2	40.0		46.0	12.5
1974–75	50.7	53.7	57.4	54.6	51.4	54.5	49.4	n.a.	53.8	17.0
1975–76	56.7	62.8	68.6	64.2	61.2	66.4	39.3		61.3	13.9
1976–77	64.4	72.7	77.7	70.5	68.6	71.5	71.0		70.2	14.5
1977–78	71.2	80.4	83.9	76.8	75.1	74.7	85.8		77.1	9.8
1978–79	80.3	86.7	88.2	82.4	79.7	86.4	82.9		83.1	7.8
1979–80	91.6	93.1	93.1	89.8	90.6	93.1	90.7		91.6	10.2
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	9.2
1981–82	108.7	106.4	107.4	110.0	112.8	109.1	120.5		110.0	10.0
1982–83	118.6	112.8	116.3	121.7	126.8	124.0	143.0	109.4	121.8	10.7
1983–84	128.2	119.5	123.9	132.8	136.7	137.8	131.5	117.3	129.9	6.7
1984–85	136.0	127.6	135.1	139.5	143.9	151.2	110.6	122.3	136.1	4.8

(*a*) Base of each index is year 1980–81 100.0 except 'Recreation and education' which is March quarter 1981–82.
(*b*) Over previous year.

(Chapter 20) Value of Retail Sales by Commodity Groups, Tasmania ($ Million)

Year	Groceries	Butchers' meat	Other food (a)	Beer, wine, spirits (b)	Clothing, drapery, footwear	Domestic hardware (c)	Electrical goods (d)	Furniture, floor coverings	Other goods (e)	Total (excl. motor vehicles, etc.)
1952–53 (*f*)	17.3	9.1	11.9	10.7	25.7	3.1	4.6	4.9	16.3	103.6
1956–57 (*f*)	23.4	11.1	15.1	14.8	30.4	3.3	6.3	6.4	20.3	131.1
1961–62 (*f*)	28.6	13.9	20.0	17.0	35.3	4.1	10.7	7.2	29.3	166.1
1962–63	29.3	14.9	21.4	16.9	36.0	4.4	11.7	7.8	30.5	172.9
1963–64	31.6	15.5	20.6	18.5	38.4	4.4	11.5	7.9	31.8	180.2
1964–65	33.6	17.1	21.9	18.9	40.6	4.4	11.3	8.5	34.7	191.0
1965–66	35.2	17.8	22.7	20.3	41.6	4.5	11.2	8.7	36.3	198.3
1966–67	36.5	19.4	24.2	23.3	45.5	5.1	11.7	10.1	39.2	215.0
1967–68	37.3	19.9	26.1	25.0	48.9	5.5	12.4	11.2	41.6	227.9
1968–69 (*f*)	48.7	20.7	23.1	30.9	49.5	8.8	13.4	12.6	49.9	257.6
1969–70	41.7	21.0	30.7	28.7	62.2	6.1	13.3	12.9	49.4	256.0
1970–71	45.2	21.3	32.6	30.7	55.6	6.7	13.6	13.5	52.9	272.1
1971–72	50.0	22.2	33.9	32.4	59.7	7.5	15.4	14.4	55.8	291.3
1972–73	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	319.5
1973–74 (*f*)	63.8	26.2	35.8	47.8	76.1	14.4	24.5	21.4	64.5	374.5
1974–75	76.7	31.3	47.2	61.7	100.3	17.1	36.1	28.9	86.1	485.4
1975–76	87.3	31.2	49.7	68.8	101.6	22.1	48.3	31.7	91.6	532.3
1976–77	110.4	35.7	58.0	77.5	117.3	24.5	56.4	34.6	103.6	618.0
1977–78	120.8	37.6	64.0	91.6	133.1	29.0	53.1	37.8	118.4	685.4
1978–79	132.0	48.2	72.8	100.5	141.2	29.5	53.2	38.8	134.3	750.5
1979–80 (*f*)	168.0	55.9	71.9	105.6	151.0	28.2	53.0	39.0	144.3	816.9
1980–81	171.5	55.2	99.0	114.0	154.6	35.5	54.1	39.9	161.9	885.7
1981–82	195.1	60.3	106.8	122.3	166.6	38.8	57.0	42.3	178.9	968.1
1982–83	234.8	63.6	91.4	119.5	186.6	39.5	69.0	41.5	184.4	1 030.5
1983–84	276.1	73.4	99.7	129.7	198.9	46.2	78.6	49.7	202.3	1 154.6
1984–85	324.4	76.5	108.6	153.5	221.8	44.8	78.2	58.4	229.5	1 296.0

(*a*) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread.
(*b*) Excludes sales from licensed clubs up to 1982–83.
(*c*) Excludes basic building materials (e.g. timber, roofing tiles, etc.), builders' hardware and supplies.
(*d*) Includes radios, televisions and accessories, musical instruments, domestic refrigerators, etc.
(*e*) Includes tobacco, cigarettes, newspapers, books, stationery, chemists' goods, jewellery, etc.
(*f*) Census figures.

(Chapter 20) Value of Trade by Sea and Air and Vessels Entered and Cleared, Tasmanian Ports

Year	Imports				Exports				Vessels entered Tasmanian ports	
	Overseas	Interstate			Overseas (b)	Interstate (b)				
	By sea and air	By sea (a)	By air	Total (a)	By sea and air	By sea	By air	Total	Overseas and interstate (c)	
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	no.	'000 net tons
1830	n.a.	n.a.		510	n.a.	n.a.		292	101	27
1840	n.a.	n.a.		1 976	n.a.	n.a.		1 734	492	85
1850	n.a.	n.a.		1 318	n.a.	n.a.		1 288	674	104
1860	1 686	450		2 136	1 544	380		1 924	806	116
1870	698	888		1 586	562	736		1 298	613	106
1880	738	2 000		2 738	1 568	1 456		3 024	654	205
1890	1 594	2 202		3 796	792	2 182		2 974	746	476
1900	1 402	2 746		4 148	3 078	2 144		5 222	741	619
1910	1 662	(d)		n.a.	1 040	(d)		n.a.	979	1 211
1919–20	1 626	(d)		n.a.	4 022	(d)		n.a.	841	632
1929–30	3 668	16 028		19 696	4 978	13 198		18 176	1 076	1 390
1930–31	1 582	12 878		14 460	4 214	9 754		13 968	992	1 319
1934–35	1 476	14 452	n.a.	15 928	4 318	11 844	n.a.	16 162	1 128	1 610
1935–36	2 498	17 134		19 632	5 502	13 116		18 618	1 191	1 977
1936–37	2 586	18 858		21 444	6 822	14 376		21 198	1 317	2 093
1937–38	3 858	19 854		23 712	5 774	16 500		22 274	1 377	2 202
1938–39	2 838	20 166		23 004	6 796	17 670		24 466	1 384	2 231
1939–40	3 188	21 780		24 968	4 852	20 954		25 806	1 243	1 512
1940–41	2 364	21 876		24 240	3 120	24 052		27 172	1 147	1 264
1941–42	1 918	24 276		26 194	3 746	28 566		32 312	1 031	1 030
1942–43	2 300	26 236		28 536	1 770	30 680		32 450	873	760
1943–44	2 384	26 162		28 546	2 298	35 288		37 586	804	796
1944–45	1 664	27 796		29 460	5 062	36 708		41 770	760	732
1945–46	2 614	29 400		32 014	7 224	33 040		40 264	728	833
1946–47	3 626	37 810		41 436	10 162	32 932		43 094	751	957
1947–48	8 564	44 000		52 564	18 566	35 066		53 632	787	1 106
1948–49	12 512	46 674		59 186	24 980	37 064		62 044	805	1 125
1949–50	18 704	51 218	(e) 10 670	80 592	29 936	42 672	(e) 3 996	76 604	862	1 183
1950–51	25 058	60 636	18 326	104 020	48 514	53 740	6 392	108 646	905	1 279
1951–52	41 422	76 024	20 474	137 920	37 024	71 684	6 018	114 726	902	1 323
1952–53	26 632	76 658	19 936	123 226	43 696	72 804	11 568	128 068	1 012	1 480
1953–54	26 098	87 438	22 164	135 700	35 466	81 488	13 580	130 534	1 060	1 508
1954–55	30 258	89 958	19 148	139 364	37 524	85 376	14 494	137 394	1 081	1 620
1955–56	24 884	99 608	21 166	145 658	40 608	100 630	18 762	160 000	1 030	1 586
1956–57	27 764	105 788	20 020	153 572	45 004	108 654	18 112	171 770	1 161	1 737
1957–58	25 466	113 636	19 122	158 224	44 506	109 652	18 354	172 512	1 241	1 872
1958–59	26 374	121 138	19 718	167 230	43 932	114 424	17 584	175 940	1 257	1 966
1959–60	27 606	130 014	19 210	176 830	47 730	137 530	20 818	206 078	1 308	2 287
1960–61	37 208	141 086	19 356	197 650	42 588	143 036	21 944	207 568	1 354	2 546
1961–62	26 788	141 776	18 000	186 564	57 196	140 794	23 298	221 288	1 533	3 042
1962–63	35 746	150 620	18 158	204 524	66 792	146 454	21 602	234 848	1 614	3 474
1963–64	35 032	167 964	19 840	222 836	73 318	173 590	23 424	275 332	1 508	3 346
1964–65	35 717	170 963	20 819	227 449	87 315	193 371	25 770	306 456	1 472	3 412
1965–66	43 585	192 732	21 123	257 441	92 007	212 785	25 575	330 367	(f) 1 645	(f) 3 887
1966–67	51 376	209 456	20 311	281 143	88 834	224 975	25 680	339 490	1 684	4 085
1967–68	45 024	220 065	20 590	285 679	76 888	233 694	26 941	337 524	1 676	4 102
1968–69	37 509	241 398	21 051	299 958	102 061	265 476	25 825	393 362	1 795	4 645
1969–70	46 998	257 441	20 551	324 989	143 470	286 083	26 287	455 840	1 759	5 574
1970–71	45 719	269 022	19 777	334 519	143 198	277 669	27 103	447 970	1 639	5 338
1971–72	39 749	281 576	20 622	341 947	178 950	302 608	29 374	510 932	1 754	5 937
1972–73	45 045	289 862	21 238	356 145	218 712	320 910	30 626	570 247	1 788	7 239
1973–74	69 277	357 805	24 760	451 843	259 745	404 382	34 566	698 692	1 631	7 225
1974–75	100 616	402 081	26 850	529 547	226 154	379 933	31 699	637 786	1 611	6 820
1975–76	76 262	503 497	27 882	607 641	250 580	441 391	36 280	728 251	1 536	6 733
1976–77	94 622	564 231	30 909	689 762	338 657	485 850	35 160	859 667	1 592	7 258
1977–78	115 778	594 793	39 388	749 960	381 942	594 441	38 206	1 014 589	1 528	6 992
1978–79	140 652	621 548	74 578	836 829	513 286	627 186	39 727	1 180 199	n.a.	n.a.
1979–80	179 780	935 584	53 481	1 168 845	646 827	772 531	32 141	1 451 499	n.a.	n.a.
1980–81	172 456	973 685	60 922	1 207 063	658 013	837 042	45 171	1 540 226	n.a.	n.a.
1981–82	166 032	1 031 330	61 187	1 258 548	647 617	879 421	47 525	1 574 562	n.a.	n.a.
1982–83	179 819	1 084 743	74 552	1 339 113	773 133	904 983	50 833	1 728 949	n.a.	n.a.
1983–84	202 786	1 189 170	69 735	1 461 691	774 308	1 075 077	57 768	1 907 153	n.a.	n.a.
1984–85	389 613	1 414 304	91 352	1 895 269	841 312	1 184 681	67 084	2 093 077	n.a.	n.a.

(a) Data for 1979–80 onwards are not directly comparable with data for previous years because of revisions to estimating procedures to take account of inadequate documentation available for interstate imports by sea.
(b) Data for 1978–79 onwards are not directly comparable with data for previous years. From 1 July 1978 overseas export figures relate to *all* goods leaving Tasmania for overseas countries. Prior to that date export figures relate to only goods leaving Tasmania for overseas countries for which documents had been lodged with customs in Tasmania.
(c) In this section each vessel is recorded as an entry at the first Tasmanian port of call only; intrastate movements are excluded.
(d) Collection discontinued until 1922–23.
(e) Not collected before 1949–50.
(f) From 1966–67 not comparable with previous years; details are now confined to vessels of over 200 registered net tons engaged solely in trade.

(Chapter 20) Overseas and Interstate Exports of Selected Commodities, Tasmania

Year	Sheep skins (with and without wool)		Textile yarn and fabrics	Refined zinc		Ores and concentrates	Timber (dressed and undressed)	
	Quantity	Value	Value	Quantity	Value	Value	Quantity	Value
	tonnes	$'000	$'000	tonnes	$'000	$'000	m^3	$'000
1945–46	1 890	326	4 599	75 454	4 214	1 668	73 206	1 132
1950–51	1 014	1 688	9 266	80 836	15 054	5 704	135 668	3 230
1955–56	1 873	1 356	14 674	100 611	19 888	10 836	140 938	6 570
1956–57	2 122	1 796	15 766	105 314	19 662	10 700	146 502	6 874
1957–58	2 138	1 674	16 112	105 541	18 190	8 088	132 242	4 616
1958–59	2 565	1 288	14 166	116 271	20 054	4 824	153 378	6 844
1959–60	3 216	2 078	17 524	115 680	22 922	5 952	177 931	8 952
1960–61	3 071	1 786	19 188	109 664	21 020	6 760	149 657	9 554
1961–62	3 050	1 892	21 278	133 012	23 680	6 030	134 033	8 588
1962–63	2 885	1 904	19 842	136 302	23 778	6 338	142 979	9 858
1963–64	3 359	2 844	21 918	134 201	27 910	9 102	168 480	11 176
1964–65	2 676	1 953	24 139	141 263	37 327	9 570	189 832	12 811
1965–66	3 268	2 465	24 077	137 257	38 331	11 302	174 297	12 145
1966–67	3 402	2 456	24 102	155 273	41 249	12 560	187 474	13 672
1967–68	2 722	1 369	25 487	120 312	33 106	17 816	183 817	13 492
1968–69	3 988	2 148	27 563	139 479	34 006	44 018	194 936	15 329
1969–70	3 236	1 790	27 784	163 847	42 625	63 478	207 242	16 238
1970–71	3 710	1 684	28 425	142 755	38 163	81 604	200 583	17 201
1971–72	3 765	1 799	29 938	194 259	55 149	88 777	202 331	17 385
1972–73	3 618	3 280	31 680	208 349	63 707	87 543	224 828	27 970
1973–74	2 303	2 926	41 174	190 293	77 143	94 381	270 248	22 556
1974–75	2 816	2 258	31 454	139 253	74 298	91 240	213 428	30 636
1975–76	2 943	2 413	41 656	138 243	74 926	92 588	238 440	25 867
1976–77	2 334	2 765	35 811	162 001	98 318	144 947	313 227	37 083
1977–78	2 565	3 565	33 285	167 870	87 129	164 014	260 738	38 282
1978–79	2 504	3 708	43 815	214 242	122 263	202 415	238 145	38 609
1979–80	2 683	5 417	37 184	185 327	127 264	248 942	291 453	88 238
1980–81	2 330	3 231	45 047	194 115	135 276	n.p.	265 488	85 254
1981–82	2 713	3 395	46 095	199 774	162 700	n.p.	255 366	82 206
1982–83	2 239	2 841	50 073	203 759	164 424	n.p.	267 441	70 031
1983–84	2 557	3 629	52 620	199 820	201 478	n.p.	234 789	84 958
1984–85	2 615	4 718	57 917	198 988	233 810	n.p.	228 837	91 223

Year	Butter (incl. butter oil)		Fresh fruit apples and pears		Meat		Cheese		Wool, greasy (a)	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	tonnes	$'000	tonnes	$'000	tonnes	$'000	tonnes	$'000	tonnes	$'000
1945–46	1 293	406	66 820	1 894	186	34	612	112	4 113	1 438
1950–51	1 958	1 173	64 841	6 828	915	302	63	17	5 446	18 688
1955–56	4 988	3 463	92 569	11 498	2 470	1 076	36	23	8 387	11 140
1956–57	6 101	3 452	58 836	7 936	2 074	883	102	73	9 392	16 198
1957–58	5 939	3 420	96 260	14 664	2 996	1 190	101	45	10 731	14 260
1958–59	7 065	4 828	87 781	11 338	5 469	2 415	69	51	11 415	12 106
1959–60	7 864	5 390	80 683	9 490	9 225	3 801	90	64	12 689	15 254
1960–61	5 419	3 298	92 730	11 226	6 896	3 212	60	47	11 068	12 560
1961–62	7 572	3 942	122 417	15 572	7 754	3 250	121	50	12 341	14 206
1962–63	8 597	4 368	108 438	17 508	9 933	4 737	578	269	11 919	15 338
1963–64	8 315	4 372	135 205	19 454	11 018	5 505	895	328	11 378	17 604
1964–65	10 374	5 914	99 410	14 260	12 881	6 645	1 707	761	13 756	16 593
1965–66	8 878	5 214	134 482	20 651	12 749	7 038	2 887	1 493	15 442	20 155
1966–67	9 140	5 259	96 085	11 872	13 727	7 939	3 530	1 642	16 238	20 373
1967–68	8 992	5 107	115 873	14 647	11 345	7 042	4 190	1 854	13 994	15 041
1968–69	9 243	5 129	96 242	13 154	12 910	7 989	1 930	884	15 798	18 592
1969–70	12 611	6 950	109 382	14 905	17 084	11 774	7 267	2 957	16 512	17 821
1970–71	10 664	5 954	96 670	13 474	15 755	10 706	6 259	2 589	17 145	14 350
1971–72	9 829	8 067	74 848	11 092	21 463	14 161	6 816	3 875	20 413	17 180
1972–73	7 437	6 104	84 066	11 566	23 061	20 368	6 656	4 085	17 735	34 579
1973–74	8 269	6 441	92 116	16 458	22 167	22 507	7 730	5 930	16 963	38 319
1974–75	5 012	4 460	57 473	10 261	18 456	12 237	10 386	7 922	15 947	26 640
1975–76	9 720	7 527	47 114	8 756	20 883	17 192	9 026	7 633	17 435	31 232
1976–77	4 363	3 851	24 847	5 732	22 951	20 281	14 552	12 317	16 204	33 685
1977–78	6 248	5 941	42 257	11 092	20 984	21 557	15 222	14 409	16 390	36 503
1978–79	2 561	3 146	40 405	11 794	24 569	37 240	16 516	18 247	16 306	38 756
1979–80	2 871	4 343	45 467	13 826	21 104	41 670	12 188	17 127	13 213	36 630
1980–81	1 510	2 703	39 932	12 467	19 718	35 890	13 302	22 414	16 356	48 422
1981–82	413	867	49 941	19 300	23 688	37 544	13 782	25 827	15 698	48 000
1982–83	1 265	3 725	39 184	22 507	30 392	53 285	11 029	23 410	15 293	48 161
1983–84	2 303	5 384	46 543	21 594	17 432	33 667	10 001	21 235	16 199	55 513
1984–85	2 692	6 552	37 662	23 729	14 164	30 249	11 750	26 227	17 129	66 856

(*a*) Excludes greasy wool on exported skins.

(Chapter 20) **Average Retail Prices *(a)* of Selected Items of Foodstuffs: Hobart (Cents)**

Year	Bread *(b)*	Tea	Sugar	Potatoes	Butter *(factory)*	Eggs 1 doz	Bacon rashers	Beef rib without bone	Silver-side *(corned)* *(c)*	Lamb *(leg)* *(c)*	Lamb chops *(loin)* *(c)*	Pork *(leg)*
	680 g	*250 g*	*2 kg*	*1 kg*	*500 g*	*55 g*	*250 g*	*1 kg*	*1 kg*	*1 kg*	*1 kg*	*1 kg*
1901	2.3	6.8	9.3	1.4	12.5	10.6	9.3	11.2	9.3	9.0	10.4	11.7
1906	2.4	6.8	9.3	2.2	11.6	12.9	7.9	11.7	9.3	9.7	10.6	11.2
1911	2.6	6.8	9.7	4.7	12.1	12.1	11.9	11.7	9.3	8.6	10.6	11.2
1916	3.2	7.9	12.8	2.1	17.5	14.4	15.5	41.4	16.8	18.1	19.4	21.4
1921	5.4	9.6	22.0	1.9	23.7	18.8	19.4	22.0	18.1	17.6	20.1	28.7
1926	4.6	12.0	16.3	3.7	21.2	16.2	16.4	20.3	15.7	17.6	20.7	24.0
1931	3.4	12.8	16.8	1.9	17.1	12.0	13.0	16.5	13.0	10.8	14.8	17.9
1936	3.7	12.6	17.9	2.4	15.0	14.9	11.1	15.0	14.6	15.4	16.8	18.1
1941	4.6	16.8	17.9	2.4	18.4	15.9	16.0	19.8	16.5	15.9	17.2	23.1
1946	4.6	12.5	17.9	2.2	19.3	20.5	19.3	24.7	20.1	21.2	21.2	26.0
1951	7.8	21.3	21.2	7.6	27.9	40.8	21.8	42.3	38.1	42.1	40.1	67.2
1956	12.4	40.3	36.6	20.5	51.0	54.1	34.6	73.4	55.6	55.6	43.9	106.3
1961	14.5	38.3	42.3	20.2	52.4	57.1	39.5	98.3	85.8	56.2	45.9	119.5
1962	14.9	37.1	42.3	12.7	52.6	56.1	38.5	89.7	74.5	51.8	39.7	113.1
1963	15.2	36.5	42.3	9.3	53.2	57.6	39.5	95.2	76.9	54.7	41.0	123.5
1964	15.3	36.3	42.1	14.8	53.9	56.1	42.8	98.8	79.6	58.6	47.6	130.1
1965	15.7	36.3	41.8	20.5	54.7	60.2	49.6	111.3	87.3	65.7	55.8	136.5
1966	17.0	36.5	41.8	11.3	56.7	63.0	52.7	119.0	94.6	69.2	57.5	140.2
1967	18.0	36.6	46.0	15.5	57.3	65.7	54.9	125.9	100.5	71.4	62.2	145.1
1968	19.1	36.4	49.0	15.2	57.3	62.2	56.3	122.1	138.9	108.5	111.8	149.5
1969	20.1	35.2	49.2	13.4	59.7	68.3	54.6	116.0	135.8	106.3	108.0	147.5
1970	21.3	33.9	49.0	14.1	60.6	67.7	55.6	122.6	138.9	197.6	109.3	147.5
1971	23.5	35.3	48.0	14.5	62.0	64.4	55.2	127.4	144.4	107.4	107.6	148.8
1972	24.9	36.7	48.4	16.3	63.9	67.4	56.9	127.2	149.9	113.3	114.0	151.9
1973	27.0	35.6	47.9	20.5	63.9	75.2	57.6	145.3	175.0	148.8	149.3	171.3
1974	31.2	37.2	48.0	30.4	67.5	58.8	75.6	153.9	201.3	170.9	174.8	220.0
1975	39.2	49.7	52.4	19.6	77.0	93.7	91.9	136.7	180.8	171.5	173.1	256.6
1976	45.1	53.0	56.7	33.7	85.2	109.2	111.6	163.1	201.1	197.1	198.2	302.7
1977	48.8	92.3	63.5	26.6	91.5	123.4	123.0	181.4	218.7	238.9	240.0	326.1
1978	52.0	88.5	68.8	35.8	91.3	128.5	126.5	202.3	247.5	269.8	277.8	344.5
1979	57.0	79.5	85.3	39.5	94.8	138.5	149.5	333.8	379.5	332.8	349.3	415.3
1980	63.8	77.3	95.3	45.0	104.8	147.5	170.5	392.0	441.8	357.5	371.0	464.0
1981	72.0	79.5	102.0	51.5	119.0	161.3	182.5	404.3	447.5	357.5	378.8	490.3
1982	79.5	86.5	115.8	45.3	150.8	169.3	204.8	409.0	441.8	359.5	373.8	540.0
1983	84.3	103.3	128.5	59.8	168.0	178.0	218.0	471.8	499.5	375.5	413.8	536.3
1984	92.0	140.3	134.0	52.8	171.0	184.8	225.8	498.8	528.5	401.3	440.0	550.8
1985	92.8	157.0	139.8	50.3	175.8	194.3	239.8	5 200	538.0	391.5	399.8	575.0

(*a*) In almost all cases the table units are not necessarily those for which the original price data were obtained. In such cases, prices have been calculated for the table unit.
(*b*) Prior to 1978, bread delivered, 900 g.
(*c*) Prior to 1968 prices shown were for 'Corned beef (brisket), Mutton (leg), Mutton chops (loin)', respectively.

Fire, Marine and General Insurance: Expenditure on Claims, Tasmania ($'000)

Year	Claims	Year	Claims
1938–39	409	1965–66	9 153
1939–40	357	1966–67	16 158
1944–45	357	1967–68	16 890
1949–50	942	1968–69	10 865
1950–51	1 572	1969–70	12 285
1951–52	1 449	1970–71	13 214
1952–53	1 907	1971–72	15 279
1953–54	2 168	1972–73	18 249
1954–55	2 743	1973–74	23 507
1955–56	3 311	1974–75	29 979
1956–57	3 289	1975–76	29 952
1957–58	4 034	1976–77	42 010
1958–59	4 225	1977–78	50 279
1959–60	5 404	1978–79	55 373
1960–61	5 519	1979–80	60 244
1961–62	5 493	1980–81	75 036
1962–63	5 949	1981–82	90 638
1963–64	6 664	1982–83	77 254
1964–65	7 854		

(Chapter 20)

Instalment Credit for Retail Sales, Tasmania *(a)*
($'000)

Year	Amount financed during period (b)						Balances outstanding at end of period	
	Motor vehicles (c)		Household and personal goods		Total all goods		Type of business	
	Non-retail businesses	Retail businesses	Non-retail businesses	Retail businesses	Non-retail businesses	Retail businesses	Non-retail businesses	Retail businesses
1965–66	18 017	400	11 126		29 543		37 495	7 645
1966–67	19 025	422	11 160		30 607		38 777	7 050
1967–68	21 909	430	12 058		34 397		43 141	6 457
1968–69	21 001	821	13 751		35 573		44 205	6 826
1969–70	23 353	925	13 816		38 094		46 537	7 317
1970–71	25 485	1 215	13 705		40 405		50 453	7 293
1971–72	28 240	1 117	13 511		42 868		54 463	7 097
1972–73	32 695	616	14 579		47 890		60 860	6 497
	Finance businesses	Other businesses	Finance businesses	Other businesses	Finance businesses	Other businesses	Finance businesses	Other businesses
1973–74	32 278	457	3 394	5 489	35 672	5 946	51 512	5 621
1974–75	40 409	371	4 028	5 753	44 437	6 124	63 544	4 352
1975–76	45 612	282	6 819	5 752	52 431	6 034	78 038	4 371
1976–77	54 738	175	7 465	5 951	62 203	6 125	95 463	4 137
1977–78	54 967	—	6 163	5 063	61 130	5 063	104 029	3 117
1978–79	48 714	—	6 761	2 753	55 475	2 753	95 716	1 486
1979–80	39 814	—	7 116	1 048	46 930	1 048	86 164	1 495
1980–81	37 286	—	6 969	1 142	44 255	1 142	80 220	1 580
1981–82	35 388	—	8 873	1 661	44 261	1 661	79 132	2 072
1982–83	30 034	—	8 328	1 553	38 362	1 553	74 726	2 330
1983–84	31 353	—	10 980	2 275	42 333	2 275	72 189	2 989

(*a*) A break in continuity of the series occurs from 1973–74. The classification for the pre-1973–74 categories 'retail businesses' and 'non-retail businesses' differs from the subsequent categories 'finance businesses' and 'other businesses' mainly in the treatment of incorporated finance subsidiaries of retailers. These were formerly included in the category 'retail businesses' but are subsequently covered in 'finance businesses'.
(*b*) Includes time payment, budget account, and personal loan schemes associated primarily with financing of retail sales of goods. However, it excludes the hiring charges, interest and insurance costs associated with these types of contracts.
(*c*) Includes new and used cars, boats, caravans, trailers and motor parts and accessories but excludes commercial type vehicles.

Banking, Tasmania
($'000)

Year	Trading banks (including Commonwealth Trading Bank) (a)			Savings banks (b)	Year	Trading banks (including Commonwealth Trading Bank) (a)			Savings banks (b)
	Deposits	Advances	Debits to customers' accounts (c)	Depositors' balances at end of year		Deposits	Advances	Debits to customers' accounts (c)	Depositors' balances at end of year
1935–36				13 636	1960–61	76 454	48 010	32 600	94 776
1936–37				14 430	1961–62	78 952	49 340	32 080	102 460
1937–38				15 384	1962–63	83 178	53 176	35 068	112 856
1938–39				16 792	1963–64	86 210	55 122	37 062	124 770
1939–40				17 036	1964–65	94 604	54 176	41 340	135 736
	n.a	n.a.	n.a.		1965–66	102 507	55 214	43 105	148 401
					1966–67	112 091	60 460	47 103	167 106
1940–41				17 882	1967–68	117 811	69 297	51 222	177 827
1941–42				18 944	1968–69	124 473	72 394	55 896	190 043
1942–43				22 348	1969–70	131 501	77 603	61 173	199 790
1943–44				28 426					
1944–45				33 828					
1945–46	34 560	7 346	5 778	40 894	1970–71	133 587	86 976	64 177	217 663
1946–47	35 504	10 168	6 748	41 712	1971–72	135 099	88 098	69 970	242 856
1947–48	37 360	14 954	7 894	43 144	1972–73	159 141	99 192	85 291	288 986
1948–49	39 620	20 084	9 398	44 826	1973–74	207 040	121 077	103 041	328 029
1949–50	44 114	22 834	11 210	48 544	1974–75	229 851	137 189	119 447	382 326
					1975–76	277 377	157 951	150 536	430 618
					1976–77	348 613	207 635	179 932	477 134
1950–51	53 444	26 636	14 740	54 310	1977–78	375 773	250 144	193 310	530 457
1951–52	61 474	33 378	17 712	60 238	1978–79	415 180	300 811	220 074	587 755
1952–53	58 270	33 440	17 700	64 156	1979–80	425 910	345 930	256 249	642 129
1953–54	62 286	37 800	19 876	67 894					
1954–55	65 826	43 670	21 432	71 618					
1955–56	68 562	44 582	23 242	74 422	1980–81	445 257	394 596	287 683	698 917
1956–57	72 976	40 406	25 200	77 518	1981–82	530 987	432 701	318 201	759 111
1957–58	73 736	41 360	25 800	80 482	1982–83	608 867	441 385	337 704	938 178
1958–59	75 218	44 828	27 600	84 924	1983–84	600 500	448 367	366 752	1 103 459
1959–60	79 574	45 948	31 000	92 712	1984–85	643 165	498 526	458 073	1 213 535

(*a*) Average of weekly figures.
(*b*) Commonwealth, trustee and private. Private savings commenced operations in Tasmania as follows: ANZ, September 1961; National, May 1962; CBA, July 1962; CBC, March 1963; and Bank of Adelaide, November 1970.
(*c*) Excludes debits to Government accounts at Hobart City branches.

PUBLICATION OF TASMANIAN STATISTICS

HOW TO OBTAIN CURRENT PUBLICATIONS

General

The Tasmanian Office of the Australian Bureau of Statistics is locatd in the *Commonwealth Government Centre* at 188 *Collins St, Hobart*. Requests for statistical publications can be made by calling at this address; by phoning the Information Officer on *Hobart* 209 409; or by writing to the *Deputy Commonwealth Statistician, GPO Box* 66A, *Hobart* 7001. Those requiring particular publications on a regular basis should ask to be placed on the publications mailing list.

Service to the public is not restricted to the distribution of publications. If no publication adequately covers the subject matter of the inquiry, then a special extraction of the data required may be undertaken if they are readily available from the basic records held in the office. The guide, *Catalogue of Publications* (1101.0), includes descriptions of all publications together with a detailed subject index and is available free of charge.

Historical

Before the appointment of the first Government Statistician in Tasmania in 1867, statistics had been published in the official 'Blue Books' compiled by the Colonial Secretary during the period 1822–1855, and in volumes entitled *Statistics of Tasmania* after self-government was granted.

By the *Commonwealth and State Statistical Agreement Act* 1924, the Tasmanian Parliament ratified an agreement for the establishment of an office in Tasmania of the Australian Bureau of Statistics, such office to meet the statistical needs of the State Government; provision was made for the Deputy Commonwealth Statistician, a Federal Government officer, to hold, at the discretion of the State Government, the title of (State) Government Statistician. The first officer appointed in this way was L.F. Giblin, D.S.O. M.C., who had previously been the State Government Statistician. (It was not until the late 1950s that similar arrangements were made in the other Australian States.)

Statistics from 1804

In the Archives Office of Tasmania, the following series are available:

(i) *Statistical Account of Van Diemen's Land or Tasmania*, 1804 *to* 1854 compiled by Hugh M. Hull (Office of the Colonial Secretary).

(ii) Official 'Blue Books' for the period 1822–1855.

(iii) *Statistics of Tasmania*—annual publications from 1856 to 1922–23.

(iv) *Statistics of the State of Tasmania*—annual publications commencing 1923–24 and continuing to 1967–68. (Copies of these volumes are held at the University Library, the State Library in Hobart, the Public Library in Launceston and the Tasmanian Office of the Australian Bureau of Statistics.) Although the bound volume entitled *Statistics of the State of Tasmania* has been discontinued as from the 1967–68 issue, the component parts are still published as separate bulletins.

Copies of publications listed under (i), (iii) and (iv) above, are avialable for inspection at the Tasmanian Office of the Bureau.

Current Publications of the Tasmanian office

The Tasmanian Office of the Australian Bureau of Statistics is engaged in a continuous publication program, the statistics appearing in either 'for sale' or 'not for sale' publications.

The 'not for sale' publications (publications available free of charge) can be further dissected into annual bulletins and press releases. The press releases are issued with a view to making the statistical information available as soon as possible after compilation. Bulletins contain greater detail than press releases, but because of time taken to compile and print, are issued some time after the period to which they refer. The two principal 'for sale' publications issued by the Tasmanian Office of the Bureau are the *Tasmanian Year Book* and *Pocket Year Book of Tasmania.*

The following table lists all recent publications issued by the Tasmanian Office. A similar table is included on the back cover of each issue of the *Monthly Summary of Statistics* and all annual bulletins, showing the latest available issues and their dates of publication.

Publications of the Tasmanian Office of the Australian Bureau of Statistics (*a*)

Cat. No.	*Publication*
	General
1101.6	*Index of Towns, Localities and Standard Area Codes irr*
1301.6	Tasmanian year Book ($19.50; $22.70 posted) *a*
1302.6	Pocket Year Book of Tasmania ($2.80; $3.50 posted) *a*
1303.6	Monthly Summary of Statistics ($1.20; $2.10 posted) *m*
1304.6	Compendium of Local Government Area Statistics *irr*
1305.6	Tasmania at a Glance *a*
1306.6	Major Economic Indicators *q*
	Demography and Social
2201.6	Census of Population and Housing 1981: Characteristics of Persons in Hobart Surburbs *irr*
2202.6	Census of Population and Housing 1981: Characteristics of Persons in Launceston Suburbs *irr*
2401.6	Census of Population and Housing 1981: Characteristics of the Population and Dwellings in Local Government Areas *irr*
3203.6	Age Distribution of the Estimated Resident Population in Local Government Areas *irr*
3204.6	Population Statistics *a*
3302.6	Divorces *a*
3303.6	Births *a*
3304.6	Deaths *a*
3305.6	Marriages *a*
4101.6	Social Report ($3.00; $4.20 posted) *irr*
4202.6	Schools
4203.6	Tertiary Education *a*
4503.6	Prison Statistics *a*
4504.6	Police Statistics *a*
4505.6	Children's Court Statistics *a*
4506.6	Lower Court Statistics *a*
4507.6	Higher Court Statistics *a*
	Foreign Trade and Finance
5402.6	Foreign Trade *a*
5501.6	Local Government Finance ($1.20; $2.10 posted) *a*
	Labour, Wages and Prices
6103.6	Employment, Earnings and other Labour Related Statistics *a*
6201.6	Labour Force Statistics *a*
6206.6	Labour Force Experience and Labour Mobility *a*
6220.6	Persons not in the Labour Force (including persons who wanted to work but who were not defined as unemployed) *a*

continued next page

Publications of the Tasmanian Office of the Australian Bureau of Statistics (*a*)—*continued*

Cat. No.	*Publication*
	Labour, Wages and Prices—continued
6222.6	Job Search Experience of Unemployed Persons (Excluding Persons who were Stood Down) *a*
6258.6	Persons who Intended to Retire from Full-time Work *a*
6301.6	Industrial Accident Statistics *a*
6401.6	Prices and Price Indexes *a*
	Agriculture
7111.6	Principal Agricultural Commodities, (Preliminary) *a*
7221.6	Livestock and Livestock Products *a*
7321.6	Crops and Pastures ($1.20; $2.10 posted) *a*
7322.6	Fruit *a*
7323.6	Apples and Pears in Cool Stores *a*
7411.6	Agricultural Land Use and Selected Inputs *a*
7501.6	Agricultual Commodities Produced, Value of *a*
7601.6	Household Fish Consumption and Non-Commercial Fishing Activities *a*
	Manufacturing and Mining
8201.6	Census of Manufacturing Establishments, Summary of Operations by Industry Class *a*
8202.6	Census of Manufacturing Establishments, Details of Operations and Small Area Statistics ($1.90; $2.80 posted) *a*
8203.6	Sawmilling, Woodchipping, etc. Statistics *q*
8301.6	Miscellaneous Indicators of Production *m*
8401.6	Mining *a*
	Interstate Trade, Tourism, Retail Trade and Building
8502.6	Interstate Trade *a*
8622.6	Retail Establishments and Selected Service Establishments: Details of Operations by Industry Class *irr*
8623.6	Retail Establishments and Selected Service Establishments: Industry and Commodity Details for Statistical Retail Areas *irr*
8624.6	Retail Establishments and Selected Service Establishments: Hotels and Accommodation *irr*
8625.6	Retail Establishments and Selected Service Establishments: Commodity Sales and Service Takings *irr*
8626.6	Retail Establishments and Selected Service Establishments: Industry and Commodity Details by Size of Establishments *irr*
8635.6	Tourist Accommodation *q*
8636.6	Holidays taken by Tasmanian Families *irr*
8731.6	Building Approvals *m*
8741.6	Dwelling Unit Commencements Reported by Approving Authorities *m*
8752.6	Building Activity *q*
8780.6	Building and Related Statistics *a*
	Transport
9302.6	Motor Vehicle Census *irr*
9303.6	Motor Vehicle Registrations *m*
9405.6	Road Traffic Accidents Involving Casualties *q*
9406.6	Road Traffic Accidents Involving Casualties *a*

(*a*) Publications are free of charge unless a price is shown. The name of each publication is followed by a symbol indicating the frequency of publication as follows: *m* — monthly, *q* — quarterly, *a* — annual, *irr* — irregular.

TASMANIAN STATISTICS IN CENTRAL OFFICE PUBLICATIONS

Although publications of the Tasmanian Office of the Australian Bureau of Statistics make available statistics on many aspects of the State, there are some fields in which additional or more frequent information is available in publications of the Central Office.

How to Obtain Central Office Publications

Central Office priced publications may be *bought* direct from the *Australian Government Publications and Inquiry Centres* at 113 *London Circuit, Canberra* or 162 *Macquarie St, Hobart,* or from the Tasmanian Office of the Australian Bureau of Statistics. A standing order may also be placed with the Bureau on a *pre-paid* basis. In addition to publications for which a charge is made, there are other Central Office publications which may be obtained free of charge by 'phoning Canberra (062) 52 6627 or Hobart (002) 209 409 or by writing to Information Services, Australian Bureau of Statistics, PO Box 10, Belconnen, ACT 2616.

Subject Matter of Central Office Publications

The fields of statistical inquiry covered in Central Office publications are very wide (more than 270 different titles are issued annually) and the best way to obtain a guide to the material available is to write to: *The Australian Statistician, PO Box* 10, *Belconnen, ACT* 2616 and ask for the booklet *Catalogue of Publications* (1101.0). Copies of this guide are also available at the Tasmanian Office of the Bureau. This free, comprehensive guide lists the publications of the Central Office and of the State offices; in addition, it contains a subject index to information covered by Central Office publications. Readers with interest in a particular field are invited to call at, or write to, the Tasmanian Office which is in a position to give advice on what publications are avilable.

INDEX OF SPECIAL ARTICLES

Special articles are indexed to broad subject areas rather than to detailed items; e.g. those of an historical nature are indexed under the entry 'Historical Articles'. The index covers all *Year Books* up to and including this edition.

Aboriginals—
Archaeology (Study of the Tasmanian Aborigine) ..... 1969 (3), pp. 69–72
Prehistory of the Tasmanian Aborigines ..... 1981 (15), pp. 6–15
Tasmanian Aboriginals and Their Struggle for Recognition (1876–1982) ..... 1982 (16), pp. 510–527
Tasmanian Aboriginal Rock Carvings ..... 1971 (5), pp. 78–81
The Aborigines ..... 1967 (1), pp. 6–10
Wybalenna, The Tasmanian Aboriginal Settlement on Flinders Island ..... 1973 (7), pp. 10–13
Agent-General for Tasmania in London ..... 1974 (8), pp. 89, 90
Apple Industry, Economic Aspects of the Tasmanian ..... 1973 (7), pp. 236–248
Astronomy in Tasmania ..... 1976 (10), pp. 561–568
Australian Broadcasting Commission ..... 1972 (6), pp. 399–404

Beech Forest Distribution ..... 1969 (3), pp. 60, 61
Boon, David ..... 1986 (8), pp. 138–140
Bridging the — Derwent; Tasman Bridge ..... 1967 (1), pp. 594–598
Tamar; Batman Bridge ..... 1968 (2), pp. 557–560
Burnie, Town of ..... 1970 (4), pp. 141, 142
Butterflies of Tasmania, The ..... 1977 (11), pp. 66–96

Callaghan Inquiry, The ..... 1978 (12), pp. 581–582
Casino Referendum ..... 1970 (4), pp. 128–132
Caves, Tasmania's ..... 1978 (12), pp. 593, 594
Census, Integrated Economic ..... 1972 (6), pp. 681–692
Centre for Regional Economic Analysis ..... 1982 (16), pp. 490–493
Consumers Protection Council ..... 1972 (6), pp. 114, 115
Convicts, The ..... 1967 (1), pp. 10–13
'Curative Medicine' or Prevention 1986 (10), pp. 175
Currency, Changeover to Decimal ..... 1969 (3), pp. 511–514
Currency,from 1803–1966 ..... 1967 (1), pp. 523–526

Dairying Industry in Tasmania, Diversification of ..... 1973 (7) pp. 249, 250
Daylight Saving ..... 1970 (4), pp. 73–76
Devonport, Town of ..... 1972 (6), pp. 121–124
Droughts, 1840 to 1969 1970 (4), pp. 70–72

Educational Radio and Television in Tasmania ..... 1971 (5), pp. 410–412
Energy Future, Tasmania's ..... 1980 (14), pp. 253–272

Factories —
Armed Forces Food Science Establishment ..... 1972 (6), pp. 332, 333 and 1979 (13), pp. 257, 259
Associated Pulp and Paper Mills Ltd ..... 1970 (4), pp. 374–376
Associated Pulp and Paper Mills, Longreach ..... 1975 (9), pp. 309, 310
Australian Glass Manufacturers Company ..... 1973 (7), pp. 319, 320
Australian Newsprint Mills Ltd ..... 1970 (4), pp. 376–378
Australian Paper Manufacturers Ltd ..... 1971 (5), pp. 348, 349
Cadbury Schweppes Australia Ltd ..... 1972 (6), pp. 322–327
Cascade Group of Companies ..... 1974 (8), pp. 317–319
Comalco Aluminium (Bell Bay) Ltd ..... 1970 (4), pp. 378–380
Edgell Division of Petersville Limited Devonport and Ulverstone Production Centres ..... 1979 (13), pp. 254–257
Electrolytic Zinc Co. (A'asia) Ltd ..... 1971 (5), pp. 349–355
Goliath Portland Cement Company Ltd ..... 1971 (5), pp. 355, 356

Lactos Pty Ltd ..... 1980 (14), pp. 273–275
Northern Woodchips Pty Ltd ..... 1975 (9), pp. 311, 312
Robbins Pty Ltd ..... 1978 (12), pp. 297–299
Stanley Works Pty Ltd, The ..... 1973 (7), pp. 317–319
Tasmanian Electro Metallurgical Co. Pty Ltd ..... 1976 (10), pp. 365–369
Tasmanian Pulp and Forest Holdings Ltd ..... 1975 (9), pp. 307–309
Tioxide Australia Pty Ltd ..... 1974 (8), pp. 316, 317
United Milk Products Ltd ..... 1976 (10), pp. 360–364

Fauna —
Birds, Tasmanian Endemic ..... 1972 (6), pp. 64–72
Butterflies of Tasmania, The ..... 1977 (11), pp. 66–96
Exotic Mammals in Tasmania ..... 1968 (2), pp. 55–60
Fauna of Tasmania, The ..... 1967 (1), pp. 58–64
Marine Molluscs of Tasmania ..... 1973 (7), pp. 51–58
Marsupials of Tasmania, The ..... 1969 (3), pp. 62–69
Reptiles and Amphibians of Tasmania ..... 1974 (8), pp. 51–60
Salmonidae, Species in Tasmania ..... 1970 (4), pp. 84–96
Sea Stars of Tasmania ..... 1972 (6), pp. 72–79
Spiders — Myths and Realities ..... 1978 (12), pp. 58–70

Fiesta, The Tasmanian ..... 1980 (14), pp. 537–540
Fire and the Tasmanian Flora ..... 1968 (2), pp. 50–55
Fire Diaster of 7 February 1967 ..... 1968 (2), pp. 590–602
Forestry and Tasmania's Forests ..... 1976 (10), pp. 292–313
Forestry Development in Tasmaia, Report on Private ..... 1978 (12), pp. 264–269
Forestry on the Tasman Peninsula ..... 1981 (15), pp. 212–215
From Quill to Keyboard: Tasmanian Government Administration in Transition, 1985 ..... 1985 (3), pp. 77–96

Geology of Tasmania ..... 1967 (1), pp. 50–58
Glenorchy, City of ..... 1969 (3), pp. 110–112
Gordon River Power Development, Stage Two, Report on ..... 1980 (14), pp. 256–272
Great Circle Routes and the Southern Ocean ..... 1980 (14), pp. 335–338

Historical Articles —
The Development of Statistics in Tasmania ..... 1982 (16), pp. 6–11
Divisions and Alignments in the Tasmanian Community during the Great War ..... 1977 (11), pp. 22–29
Dry, Sir Richard: Premier of Tasmania, 1866 to 1869 ..... 1976 (10), pp. 6–26
Franklin, Sir John, The Narrative of ..... 1969 (3), pp. 12–19
Glover's (John) Migration to Tasmania ..... 1977 (11), pp. 506–513
Governors, the Administration of —
Arthur, Colonel George ..... 1968 (2), pp. 7–14
Davey, Thomas ..... 1972 (6), pp. 7–10
Denison, Sir William Thomas ..... 1971 (5), pp. 11–22
Eardley-Wilmot, Sir John Eardley ..... 1970 (4), pp. 16–30
Franklin, Sir John ..... 1969 (3), pp. 6–11
Sorell, William ..... 1972 (6), pp. 11–16
Land Exploration of Tasmania, The ..... 1970 (4), pp. 6–16
Parliament of Tasmania, 1823–1901 ..... 1973 (7), pp. 6–10
Premiers of Tasmania: A Profile —
Dry, Sir Richard ..... 1976 (10), pp. 6–13
Gregson, Thomas ..... 1970 (4), pp. 30–35
Innes, Frederick Maitland ..... 1979 (13), pp. 1–5
Smith, Sir Francis ..... 1971 (5), pp. 22, 23
Wilson, Sir James Milne ..... 1978 (12), pp. 1–22
Smith, Francis, Colonial Developments during the Government of (1857–1860) ..... 1974 (8), pp. 6–16
Tasmania: 1861–1866 ..... 1975 (9), pp. 6–21
Tasmanian Main Line Railway Company, The ..... 1977 (11), pp. 6–22
Van Diemen's Land Company, The ..... 1971 (5), pp. 7–11
Hobart, City of ..... 1967 (1), pp. 105–107
Hydatids, The Problem of ..... 1971 (5), pp. 192, 193
Hydro-Electric Commission, Tasmania's Next Major Power Development ..... 1981 (15), pp. 259–266
Hydro-Electric Schemes, Proposed Lower Gordon ..... 1978 (12), pp 291–293

Inflation, Price Indexes and ..... 1976 (10), pp. 665–668

Lagoon of Islands ..... 1976 (10), pp. 64–73

Lands Department, The ..... 1980 (14), pp. 41–50
1985 (2), pp. 29–34
Launceston, City of ..... 1968 (2), pp. 100, 101
Launceston, The People Places of ..... 1981 (15), pp. 95–102
Law, Evolution and Origin of Tasmanian System ..... 1967 (1), pp. 402–404
Legislative Council, The ..... 1983 (17), pp. 67–77
Library Services in Tasmania —
Morris Miller (University) Library ..... 1972 (6), pp. 397–399
State Library ..... 1971 (5), pp. 412–417
Livestock Performance Testing ..... 1972 (6), pp. 239, 240
Local Government Reorganisation (Tamar Valley) Poll 1983 ..... 1984 (5), pp. 134–141
Location of Control of Tasmanian Business Establishments ..... 1976 (10), pp. 404–406

Maria Island ..... 1971 (5), pp. 81–84
Mining — Aberfoyle Tin Ltd ..... 1981 (15), pp. 225–228
King Island Scheelite ..... 1980 (14), pp. 217–223
Mt Lyell Mining and Railway Co. Ltd. Problems for the ..... 1977 (11), pp. 303–305
Rension Limited ..... 1979 (13), pp. 216–223
Resurgence of the Tasmanian Mining Industry ..... 1970 (4), pp. 295–302
Savage River Iron Ore Complex ..... 1969 (3), pp. 255–258
West Coast Mining Chronology ..... 1967 (1), pp. 241–243
Municipal Amalgamation and the Chapman Report of March 1979 ..... 1980 (14), pp. 71–73
Municipal Commission, 1972, Report of ..... 1975 (9), pp. 92–100

National Trust of Australia (Tasmania) ..... 1974 (8), pp. 485–490
National Parks and Wildlife Service ..... 1973 (7), pp. 90–92

Off-Course Totalisator Betting (T.A.B.) ..... 1975 (i), pp. 151–156
Ombudsman ..... 1971 (5), pp. 117–119
Outdoor Recreation in Tasmania ..... 1985 (16), pp. 431–435

Parliament of Tasmania ..... 1973 (7), pp. 6–10
Petroleum Exploration ..... 1972 (6), pp. 270–272
Planning and Development, The Department of ..... 1978 (12), pp. 583–586
Police Force, Development from 1804 ..... 1967 (1), pp. 418–424
Politics and the South-West ..... 1983 (17), pp. 426–429
Pollution Control in Tasmania ..... 1975 (9), pp. 54–60
Population Delimitation of Urban Boundaries (A Summary) ..... 1968 (2), pp. 134–137
Price Indexes and Inflation ..... 1976 (10), pp. 665–668

Railway System, Committee of Inquiry into the Tasmanian
('Joy Committee Report') ..... 1978 (12), pp. 371–376
Rural Reconstruction ..... 1972 (6), pp. 199–201

Sevrup Fisheries Pty Ltd ..... 1975 (i), pp. 281–283
Sheep Industry, Economic Structure of the Tasmanian ..... 1974 (8), pp. 239–250
Shipbuilding in Tasmania ..... 1984 (14), pp. 409–416
Soils ..... 1971 (5), pp. 45–50
1986 (2), pp. 36–37
South-West National Park, Draft Management Plan for ..... 1976 (10), pp. 222–229
State Strategy Plan for Tasmania ..... 1978 (12) pp. 576–581
Sydney Future's Exchange ..... 1981 (15), pp. 352–354

T.A.B. (Off-Course Totalisator Betting) ..... 1975 (9), pp. 151–156
Tasman Bridge Disaster ..... 1976 (10), pp. 465–483
Tasmania and Newfoundland: Island States with Much in Common ..... 1980 (14), pp. 540–558
Tasmania — Holiday Island ..... 1983 (17), pp. 453–455
Tasmanian Film Corporation ..... 1982 (16), pp. 386–389
Tasmanian Fungi ..... 1986 (2), pp. –42
Tasmanian Government Administration in Transition, 1985 ..... 1985 (3), pp. 77–96
Tasmania Radiocommunication Plan ..... 1984 (17), pp. 491–496
Tasmania's Interstate Transport Problem ..... 1974 (8), pp. 373–376
Taxation — Personal Income Taxation in Australia ..... 1977 (11), pp. 654–662
TEND Committee Report ..... 1979 (13), pp. 394–405
TEXTILE Industry in Tasmania, The ..... 1972 (6), pp. 327–332
Theatre Royal ..... 1973 (7), pp. 477–480
Tourism in Tasmania ..... 1972 (6), pp. 115–118
Transport to and from Tasmania, Report on ('Nimmo Report') ..... 1977 (11), pp. 426–430

Vegetation of Tasmania ..... 1969 (3), pp. 55–59
1986 (2), pp. 37–40
Viticulture in Tasmania ..... 1977 (11), pp. 266–278

Wages — Evolution of the Tasmanian Wages Board System ..... 1967 (1), pp. 474–484
Summary of Commonwealth Judgements, 1907–1958 ..... 1968 (2), pp. 430–431
Woodchip Industry ..... 1971 (5), pp. 264–267
Wrest Point Casino ..... 1974 (8), pp. 439, 440

GENERAL INDEX

A

Abel Tasman 146–147
Aboriginal sites 49
Accidents —
  Industrial 135–136, 138
  Road traffic 84
Accommodation, tourist 148–149, 153
Acts of State Parliament 65–69
Adoptions 191
Adoptions, inter country 191
Adult education 164
Adult psychiatric services 180
Advanced education 162–164
Aerodromes 223–224
Age pensions 184–185
Age specific death rates 171
Aged person's homes 196, 279
Agriculture —
  General 231–243
  Crops 234
  Establishments 234
  Fruit 239, 240
  History 231–233
  Land use 233–234
  Livestock 234–237
  Pastures 234
  Principal crops 238–240
  Research and development 241
  Services 240–241
  Veterinary services 241
Air services 223–224
Airports 223–224
Alcohol and drug dependancy services 181
Aluminium 250
Annie Kenney women's shelter 194
Ansett Airlines of Australia 223
Apples 239
Apprentice of the Year 132
Apprenticeships 131–132, 281
Area —
  Islands 29
  Local government areas 77
  Tasmania 29
  Under cultivation 233–234
Arrivals and departures 146–147
Ashley Home for Boys 191
Auckland–Hobart airlink 147, 223
Australia Post 227
Australian Broadcasting Commission 228–229
Australian Maritime College 163, 164
Australian Pulp and Paper Mills (APPM) 258
Australia's Federal system 51
Average weekly earnings 132–133
Aviation, civil 223–224

B

Banking —
  Savings banks 273
  Trading banks 273
  Types of banks 273
Basic wage 133–134
Bee-keeping 237–238
Beef cattle 235–236
Bell Bay thermal power station 202
Benefits —
  General 184–188
  Funeral 188
  Sickness 186–187
  Supporting Parent's 185
Bicentennial Road Development program 222
Births 117
Birth rates 117
Boon, David 140–142
Broadcasting 228–230
Building 269–282
Building approvals 271
Building societies 273
Bus services —
  General 220
  Springfield interchange 220
Butter production 237

C

Cabinet and executive government 57
Cabinet portfolios 62
Cambridge airport 223–224
Car registrations 220
Cars 219–220
Caroline House women's shelter 194
Cattle 234, 235–236
Causes of death —
  General
  Accidents 171, 173
  Cancer 171, 173
  Cerebrovascular diseases 171
  Heart disease 171, 173
  Malignant neoplasms 171, 173
  Motor vehicle accidents 173
  Respiratory diseases 171, 173
  Suicide and self-inflicted injuries 173
Cereals for grain 233–234
Cheese production 237

Child and adolescent psychiatric services 180
Child care 192
Child health 176, 178
Child welfare 189–190
Children's homes 190
Cities and municipalities 73–79
Civil aviation 223–224
Climate —
  General 30–34, 46
  Floods 32
  Hail 31, 33
  Hobart 33
  Rainfall 31, 33, 46
  Review 1985 34
  Snow 31, 33
  Temperature 30, 33, 34
  Thunderstorms 31
  Winds 30
Coal 204, 249
Coat of Arms, Tasmania 70
Comalco Aluminium (Bell Bay) Ltd. 250, 251
Commercial broadcasting 229
Commonwealth Courts —
  General 90–91
  Family Court 91
  Federal Court of Australia 91
  High Court of Australia 90–91
Commonwealth Government 51
Commonwealth Government Departments 54, 55
Commonwealth Parliament —
  General 52–53
  The House of Representatives 53
  The Senate 52
Commonwealth payments to or for Tasmania 99, 100
Commonwealth Scientific Industrial Research Organistion 260
Commonwealth Employment service 128–129
Commonwealth–State —
  Financial Relations 95–100
  Tax sharing 95–100
Community Employment Program 129–130
Community welfare programs 193–196
Community Youth Support Scheme 129
Conservation areas 49
Consolidated Revenue Fund 101–102
Construction, Hydro-Electric Commission 202–203
Consumer price index 293
Cot deaths 171–173
Council Clerks 73–79
Councillors 73–79
Courts —
  General 87–91
  Children's 89–90
  Commonwealth 90–91
  Coroners 90
  Courts of Petty Sessions 88
  Courts of Request 89
  Lower 88–91
  Sentences 91–93
Courts—*continued*
  Supreme Court 88
Cressy–Longford Irrigation Scheme 214
Cricket 139, 140–142
Crime prevention 85
Criminal investigations 82–83
Criminal offences 82, 88, 89, 90
Crops —
  General 234
  Apples 239
  Hops 239
  Lavender 240
  Poppies 240
  Raspberries 239
  Vegetables 238
Crown Land 236

D

Dairy produce 236, 237
Deaths —
  General 170–173
  Causes of 171, 173
  Cot 171–173
  Infant 171–173
  Rates 171
Deer 236
Demography 107–122
Dental health 179
Department of Agriculture 232, 241
Department of Main Roads 222
Departments —
  Commonwealth Government 54, 55
  State Government 63, 64
Derwent Water Supply 211
Devonport airport 224
Disability pensions 185
Disputes, industrial 135
District hospitals 175
District nursing centres 175
Divorces 91
Double orphan's pension 187
Dwellings 269–276

E

Earnings 132–134
East–West Airlines 223
Edgell–Birds Eye, Division of Petersville 262
Education —
  General 155–167
  Adult 164
  Advanced —
    Australian maritime College 163, 164
    General 163–164
    Tasmanian State Institute of Technology 163
  Funding 164–165
  Health 179
  Libraries 166
  Preschool 156
  Primary 156–157, 160

Education—*continued*
Secondary 157–160
Secondary Allowances Scheme 165
Tasmanian State Institute of Technology 163–164
Technical and adult 164
Tertiary 160–164
University —
General 160–162
Degrees conferred 162
Radio telescope 161
Staff 161
Students 160, 162
Election results 1986 58
Electoral system 58
Electricity —
General 201–203
Consumption 201
Electrolitic Zinc Company 250, 215
Emblems, State 70
Employment —
General 124–126
Community Youth Support Scheme 193–194
Employment and training schemes 128–132
Employment service, Commonwealth 128–129
Energy —
General 199–209
Management 208
Planning 204–205
Research 205–208
Environment 42–45

F

Family allowances 187
Family assistance —
General 192–193
Home Help 193
Home Maker Service 193
Family Court 91
Family Income Supplement 187–188
Farmer of the Year 242–243
Farms 234
Federal Court of Australia 91
Fertility rates 117
Fertility, soil 37
Finance, Public —
General 95–108
Commonwealth–State financial relations 95–100
Consolidated Revenue Fund 101
Loan Fund 101–102
Local government finance 104–106
National Debt Commission 102
Payments to Tasmania 99, 100
Public account 100–101
Public debt 102
State and local government 106
State Government Works Program 103
Finance, Public—*continued*
State taxation 104
Tax sharing 95–100
Trust Fund 103
Financial assistance for housing 274
Fines, court penalty 91–92
Firewood 205
Flag, Tasmania 70
Flinders Island Airport 223
Floods 32
Floral emblem, Tasmania 70
Fog 33
Forestry Commission 206
Forests —
General 37–40
Mixed 38
Ownership 225–226
Reserves 226
Sclerophyll 39–40
Temperate rain 37–38
Timber concessions 256
Types 37–38
Utilization 256–259
Foster homes 190, 191
Frost 33
Fruit 239–240
Funeral benefit 188
Fungi 40–42
Further education 160–164

G

Game reserves 49
General hospitals 175
Gaols 92–93
Goats 236
Gold 250, 251
Goliath Portland Cement Co. 249
Government and administration 51–79
Government Departments —
State 61–64
Commonwealth 54–55
Government —
General 51–79
Departments —
State 63, 64
Commonwealth 54–55
Education funding 164–165
Federal system of 51
Local 52
Schools 156–160
State 70
Support to sport 142
Governors 56, 57
Governor-General 51
Grants —
Health 99, 100
Tax sharing 96, 97, 98, 99
To local government 104

H

Hail 31, 33
Handicapped child's allowance 187
Handicapped person's services 194
Hare-Clarke system 58
Health Education 179
Health grants 99, 100
Health maintenance —
  General 176–179
  Child health 176, 178
  Dental health 179
  Health education 179
  Mothercraft home 178
  "Curative Medicine" or prevention 177
Health services —
  Adult psychiatric services 180
  Alcohol and drug dependency services 181
  Caring for the sick 173–176
  Child and adolescent psychiatric 180
  Child health 176, 178
  Dental health 179
Health services —
  General 169–181
  Health education 179
  Health maintenance 176–179
  Home nursing 175–176
  Hospitals 174–175
  Intellectual handicap services 181
  Mental health 180–181
Hellyer deposit 251
High Court of Australia 90–91
Higher School Certificate 157
Historic sites 47–48
Hobart Regional Water Board 107, 210
Hobart —
  Airport 223–224
  Cambridge Airport 223–224
  Climate 32
  Population 111
  Settlement 231
  Southern Outlet 222
Home nursing 175–176
Homeless youth 194
Honey 237–238
Hops 238, 239
Hospitals —
  General 174–175
  District 175
  District nursing centres 175
  In-patients treated 175
  Maternity 175
  Public 175
  St Johns, Hobart 174
Hotels 147, 148, 278
House of Assembly —
  General 58
  Members 58
House of Representatives —
  General 53
  Members 53
Huon Highway improvements 222
Hydro-Electric Commission —
  Constructin 202–203
  Future expansion 203
  Profits 201
  Road construction 221
  Water resources 210

I

Illnesses 169–170
Imprisonment 92–93
Income maintenance 184–188
Independent schools 158, 159, 160
Industrial accidents 135–136, 138
Industrial disputes 135
Industries, mining 246–252
Infant deaths 171–173
Intellectual handicap services 181
Inter-state trade 283–287
Invalid and disability pensions 185
Iron ore 250
Irrigation —
  Cressy–Longford Scheme 214
  Rivers and Water Supply Commission 216
Islands, area of 29

J

Judges 88
John Edis Hospital 181

K

Karinya women's shelter 194
King Island 250
King Island Airport 223

L

Labour and the workplace 123–138
Labour force —
  General 123–127
  Definitions 137–138
  Employment 124–126
  Participation 123–124
  Unemployment 126–127
  Youth unemployment 126–127
Lakes 35
Lambs 235, 236
Land drainage schemes 216
Land use 233–234
Launceston Airport 223
Launceston —
  Climate 34
  Population 111
  Southern Outlet 221
  Water supply 217

Lavender 240
Law and order 81–93
Leatherwood honey 238
Legislative Council —
General 60, 61
Members 60, 61
Elections and by-elections 60–61
Electoral divisions 61
Libraries —
General 165–166
Academic 165
Educational 166
State Library of Tasmania 165
Life expectancy 118
Limestone 249–250
Litter control 45
Livestock —
General 234–237
Cattle 234, 235–236
Deer 234, 236
Goats 234, 236
Pigs 234, 236
Sheep 234–235
Livestock Products —
General 236–238
Dairy produce 236, 237
Honey 237–238
Meat 236–237
Wool 236, 237
Loan Fund 101–102
Local Government —
General 70–79
Areas 77
Councillors 73–79
Finance 104–106
Grants 104
Long term debt 106
Rates 104
Receipts and outlays 105–106
Review 1984–85 71, 72
Trading activities 105
Lower Courts 88–90

M

Marriages 117
Maternity Hospitals 175
Mayors 73
Meat 236–237
Medical consultations 170
Medications 170
Members of Parliament —
House of Assembly 58
House of Representatives 53
Legislative Councillors 60, 61
Senators 52, 53
Mental health —
General 180–181
Adult psychiatric services 180
Alcohol and drug dependency services 181
Mental health—*continued*
Child and Adolescent 180
Intellectual Handicap Services 180
Metropolitan Transport Trust 220
Metropolitan Water Board 107
Migrant organisations 194
Milk 237
Minerals —
General 246–252
Aluminium 250
Coal 249
Gold 250, 251
Non-metallic 249–250
Minerals —
Tin 250
Zinc 250
Mineral production 249–250
Mining —
General 244–252
Construction materials 249
Exploration 246, 248
Location of principal operations 247, 250
Ministers, State government 62
Morbidity 169–170
Mortality 170–173
Mothercraft Home 178
Motor taxes 103
Motor vehicles —
General 219
Ownership 220
Registrations 220
Mount Lyell 248, 250, 251
Mount Wellington Waterworks 212–213
Mountains 35
MTT 220
Municipalities 70–78
Municipal subsidies, sewerage 210–211
Museums —
General 166–167
Queen Victoria Museum and Art Gallery 167
Museums, Tasmanian Museum and Art Gallery 166–167
Muttonbird reserves 49

N

National Debt Commission 102
National parks and reserves 42–44, 46–50
National Parks and Wildlife Service —
General 42–44, 46–50
Aboriginal sites 49
Conservation areas 49
Game Reserves 49
Historic sites 47–48
Muttonbird reserves 49
National parks 46
Sanctuaries 50
State reserves 47
Nature reserves 48
Neighbourhood houses 195–196

Newspapers —
General 227–228
Circulation 227–228
History 227–228
Newsprint 258–259
Non-government schools 156–160
North West coast road development 221–222
North-West Regional Water Authority 108, 210
Nursing 172–177

O

Oil crops 240
Oil poppies 240
Old-age pensions 184–185
Overseas shipping 287–290
Overseas trade 283–287

P

Paper production 42–44, 46–50
Parks, national 144
Parliament —
General 57–61
Cabinet and executive government 57
Ministry 62
State Acts 65–69
The House of Assembly 58
The Legislative Council 60, 61
Passenger arrivals and departures 146–147
Pastures 234
Patients —
Hospital 175
Psychiatric 180
Pensions —
General 184–186
Invalid and disability 185
Old age 184–185
Service 185
Widow's 185
Petroleum —
Consumption 199–200
Exploration 200–201
Physiographic regions 35–36
Physiography 35–36
Pigs 236
Police —
General 82–86
Community relations 86
Crime prevention 85
Criminal investigation 82–83
Recruitment and training 85
Support services 84–85
Tasmanian Police Pipe Band 86
Traffic control 83–84
Pollution —
General 44–45
Control 44
Emission control exemptions 44–45
Litter control 45
Pollution—*continued*
Prosecutions 44
Water 45
Poppies 240
Population —
General 109–122
Age structure 110, 112, 115
Burnie–Devonport 111, 114
Census results 112
Comparison with other States 119
Distribution 114, 115, 119
Historical summary 109–114
Hobart 111, 115
Launceston 111, 115
Local government areas 116
Port Arthur 144–145
Ports, Tasmanian 287–290
Postal services 227
Premiers 57
Preschool education 156
Prices —
Average retail 294
Increases 293
Primary education 156–157, 160
Prisoners 92–93
Prisons 92–93
Private schools 157, 158, 159
Probation and parole 93
Production 261–268
Psychiatric patients 180
Public account 100
Public Debt 102
Public Finance —
General 95–108
Commonwealth–State financial relations 95–100
Consolidated Revenue Fund 101
Loan Fund 101–102
Local government finance 104–106
National Debt Commission 102
Payments to Tasmania 99, 100
Public account 100–101
Public debt 102
State and local government 106
State Government Works Program 103
State taxation 104
Tax sharing 95–100
Trust Fund 103
Public Hospitals 175
Public Transport —
General 219–224
Air services 223–224
Bus services 220
Rail services 223
Springfield interchange 220
Tasmanian usage 219
Pupils 157, 158

Q

Qantas 223

Quarantine services 240
Queen Victoria Museum and Art Gallery 167
Queenstown —
  Mining 248, 250
  Airport 224
  Rainfall 209

R

Radio 228–230
Radio and Television Services 228–230
Rail services 223
Rain forests 37–38
Rainfalll 31, 33, 46
Raspberries 239
Rates, local government 104
Recreation —
  General 142–143
  Older Adults 142–143
  Women 143
  Youth 143
Reece Dam 202
Regional libraries 165
Regional Water Schemes —
  North 214
  North West 214
  South 211
Religion —
  General 149–152
  Archbishop of Canterbury 150–152
  The future 152
  Denominations 149
  Review of 1984–85 150–152
  The Christian Community 150–152
Renison Goldfields Consolidated Ltd. 250
Research, energy 205
Retail prices 293–294
Retail trade 290–292
Rivers 35
Rivers and Water Supply Commission —
  General 108, 210
  Irrigation Office 216
Road toll 84
Roads —
  General 220–222
  New construction 221–222
  Road signing 222
Rural Youth 242

S

Satellites 225
Savage River Mines 250
Schools —
  Government 156–160
  High 158, 160
  Locations 160
  Non-Government 156–160
  Preschool 156
  Primary 156–157, 160
Schools—*continued*
  Retention Rates 158–159
  Secondary 157–160
  Special 160
Sclerophyll forests 39–40
Secondary education 157–160
Secondary industries 261–268
Senate 52
Senators 51
Service pensions 185
Sewerage schemes 210
Sheep 234–235
Shipping 287–290
Sickness benefit 186–187
Smithton Airport 224
Snow 31, 33
Soil erosion 242
Soils 36–37
Soil fertility 37
Solar power 206
Southern Regional Water Supply 211
Special Benefit 188
Special Broadcasting Service 229
Sport 139–142
Sporting facilities 139, 142, 279
State Consolidated Revenue
  Fund 101
State Court system 87
State and local government
  finance 106
State election results 1986 58
State emblems 70
State Forestry Commission 206
State Government —
  General 56–66
  Departments 63, 64
  Works program 103
  Ministers 62
State Library of Tasmania 165
State Parliament —
  General 57–61
  Acts 65–69
  Cabinet 57
  The House of Assembly 58
  The Legislative Council 60, 61
State Public Account 100–101
State —
  Taxation 104
  Electoral system 58
  Finance 95–104
  Loan Fund 101–102
  Public debt 102
  Reserves 47
  Trust Fund 103
Strahan Airport 224
Students 157, 158, 162
St Helens Airport 224
Sudden Infant Death Syndrome 171–173
Sunshine 33
Supporting Parent's Benefit 185
Supreme Court 88

T

Tasman Peninsula 144–145
Tasmanian —
  Court System 87
  Department of Health Services 177
  Flag 70
  Floral Emblem 70
  Government 56–66
  Museum and Art Gallery 166–167
  Police Pipe Band 86
  Rural Youth 242
  State Institute of Tasmania 163
  Coat of Arms 70
  Employment Program 130
  Industrial Commission 133–134
Tasmania —
  Agriculture 231–243
  Cities and municipalities 73–79
  Exports 284–287
  Geology 245–246
  Imports 287
  Location 29
  Minerals 246–252
  Timber 253, 257
Tax sharing 95–100
Tax sharing grants 96, 97, 98, 99
Taxation —
  General 95–100, 104
  Receipts 104
  Tax sharing 95–100
Teachers 157, 158, 161
Technical and adult educatin 164
Telecommunications —
  General 224–227
  Datel service 225
  History 224–225
  Satellites 225
  Services 224
  Telefinder service 225
  Telephone exchanges 226
  Telephone system 225
Telephone exchanges 226
Telephone system 225
Television 228–230
Television broadcasting licenses 229–230
Temperature 30, 33, 34
Tertiary education 160–164
Thunderstorms 31
Timber —
  Concessions 256
  Hardwoods 254
  Plantations 255
  Softwoods 255
Tin 250
Tourism —
  General 144–149
  Accommodation 148–149, 153
  Department of, 145–146
  Developments 147
Tourism—*continued*
  Management 145–146
  Passenger arrivals 146
  Road construction 222
Trade —
  Interstate 283–287
  Overseas 283–287
Trade Unions 134–135
Traffic accidents 84
Traffic control 83–84
Training and apprenticeship 130, 132
Training schemes, employment 128–132
Trans Australia Airlines 223
Transport 219–224
Trust Fund 103

U

Unemployment 126–127
Unemployment benefit 186
Unions, trade 134–135
University —
  General 206–207
  Degrees conferred 162
  Radio Telescope 161
  Staff 161
  Students 160, 162

V

Veteran's Affairs, Commonwealth Department of, 185, 275
Vegetables 238
Vegetation —
  General 37–42
  Coastal Heath 40
  Button-grass plains 39
  Mixed forest 38
  Schlerophyll forests 39–40
  Subalpine 38–39
  Tasmanian Fungi 40–42
  Temperate rain forest 37–38
Veterinary services 241
Visitors to Tasmania 146, 148

W

Wages —
  General 132–135
  Average weekly earnings 132–133
  Basic 133
  Fixing authorities 133–134
  Minimum 134
  National wage case decisions 133
  Tasmanian awards 133–134
War pensions 185
Wardens 74–79
Wards of the State 190
Water Pollution 45
Water Resources —
  General 209–218

Water Resources—*continued*
Management 210–211
Usage options 209–210
Water supply —
Income and expenditure 107–108
Computerisation 218
Water treatment 216
Waterworks, Mount Wellington 212–213
Weather review 1985 34
Welfare System —
General 183–197
Aged and disabled 196
Child welfare 189–192
Community programs 193–196
Crisis intervention unit 194–195
Direct services 189–196
History 189
Income maintenance 184–188
Migrant services 194
Neighbourhood houses 195–196
Pensions 184–186
Voluntary agencies 196–197
Women's shelters 194
West Coast road development 221–222
Widows' pension and Supporting Parents Benefit 185
Wildlife sanctuaries 50
Wind power 204, 205–206
Winds 30, 33
Women's shelters 194
Woodchip industry 256
Wool 236–237
Wybra Hall 191
Wynyard Airport 223

Y

Youth employment and training schemes 130
Youth services 191, 193–194
Youth unemployment 126–127

Z

Zinc 250, 251